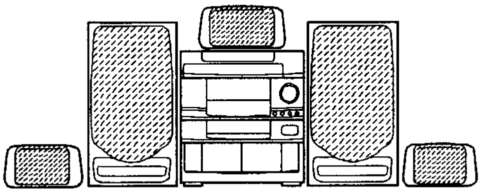
aiwa

aiwa SERVICE

Z-VM27
Z-VM270
Z-VM279



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR6
- BASIC CD MECHANISM : 6ZG-1 YDF
- TYPE : HE,EZ,G,U

SERVICE MANUAL

SYSTEM	CD – CASSEIVER	SPEAKER
Z–VM27 (TYPE : U)	CX–ZVM27	SX–Z27 SX–CR423
Z–VM270 (TYPE : EZ,EEZ,G)	CX–VM270	SX–Z270 SX–CR423
Z–VM279 (TYPE : HE)	CX–ZVM279	SX–Z2890 SX–CR423

- If requiring information about the Speaker, see Service Manual of SX–Z27/270/2890, S/M Code No. 09-964-137-8FP.

S/M Code No. 09–968–145–7FE

TABLE OF CONTENTS

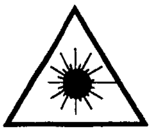
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING 3
PRECAUTION TO REPLACE OPTICAL BLOCK 3
SPECIFICATIONS 4
CD MECHANISM DISASSEMLY INSTRUCTION 5
ELECTRICAL MAIN PARTS LIST 8
TRANSISTOR ILLUSTRATION 14
BLOCK DIAGRAM – 1 (MAIN / FRONT) 15
BLOCK DIAGRAM – 2 (CD) 17
BLOCK DIAGRAM – 3 (TUNER : G, EZ) 19
BLOCK DIAGRAM – 4 (TUNER : U, HE) 20
WIRING – 1 (MAIN : G, EZ) 21
SCHEMATIC DIAGRAM – 1 (MAIN : G, EZ) 23
IC BLOCK DIAGRAM – 1 26
WIRING – 2 (MAIN : HE) 27
SCHEMATIC DIAGRAM – 2 (MAIN : HE) 29
IC BLOCK DIAGRAM – 2 32
WIRING – 3 (MAIN : U) 33
SCHEMATIC DIAGRAM – 3 (MAIN : U) 35
IC BLOCK DIAGRAM – 3 38
WIRING – 4 (FRONT) 39
SCHEMATIC DIAGRAM – 4 (FRONT) 41
IC BLOCK DIAGRAM – 4 44
WIRING – 5 (PRO-LOGIC) 45
SCHEMATIC DIAGRAM – 5 (PRO-LOGIC) 47
WIRING – 6 (CD) 49
SCHEMATIC DIAGRAM – 6 (CD) 51
WIRING – 6 (DECK) 53
WIRING – 7 (PT) 54
FL GRID ASSIGNMENT & ANODE CONNECTION 55
IC BLOCK DIAGRAM – 5 56
IC DESCRIPTION 57
ADJUSTMENT – 1 <TUNER / DECK> 63
PRACTICAL SERVICE FIGURE 65
ADJUSTMENT – 2 <CD> 66
TEST MODE 69
CD TROUBLESHOOTING 70
MECHANICAL EXPLODED VIEW 1 / 1 71
MECHANICAL PARTS LIST 1 / 1 73
TAPE MECHANISM EXPLODED VIEW 1 / 1 74
TAPE MECHANISM PARTS LIST 1 / 1 76
CD MECHANISM EXPLODED VIEW 1 / 2 77
CD MECHANISM PARTS LIST 1 / 2 78
CD MECHANISM EXPLODED VIEW 2 / 2 79
CD MECHANISM PARTS LIST 2 / 2 79
SPRING APPLICATION POSITION 80
ACCESSORIES / PACKAGE LIST 81
REFERENCE NAME LIST 82

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- ■ Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- ■ Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

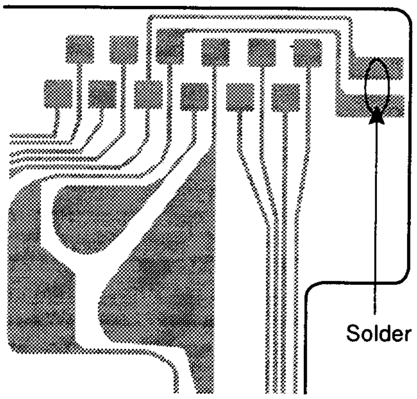
Precaution to replace Optical block

(KSS – 213B)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in figure below.

PICK-UP Assy P.C.B



SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM (MW) Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 µV/m
Antenna	Loop antenna

<LW Tuner section> (EZ,G)

Tuning range	144 kHz ~ 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

<Amplifier section>

Power output	**Front** HE, G, EZ : Rated 65 W + 65 W (6 ohms, T.H.D. 1%, 1 kHz) HE : Reference : 85 W + 85 W G, EZ : Reference : 80 W + 80 W (6 ohms, T.H.D. 10%, 1 kHz) U : 80 watts per channel, Min. RMS at 6 ohms, from 50 Hz to 20 kHz, with no more than 1% Total Harmonic Distortion
	Rear (Surround) G, EZ : Rated 20 W + 20 W HE : Rated 10 W + 10 W (6 ohms, T.H.D. 1%, 1 kHz) G, EZ : Reference : 24 W + 24 W HE : Reference : 12.5W + 12.5W (6 ohms, T.H.D. 10%, 1 kHz) U : 20 watts per channel, Min. RMS at 8 ohms, from 1 kHz with no more than 1% Total Harmonic Distortion
	Center G, EZ : Rated 20 W + 20 W (6 ohms, T.H.D. 1%, 1 kHz) HE : Rated : 20 W (8 ohms, T.H.D. 1%, 1 kHz) G, EZ : Reference : 24 W + 24 W (6 ohms, T.H.D. 10%, 1 kHz) HE : Reference : 25 W (8 ohms, T.H.D. 1%, 1kHz) U : 20 watts per channel, Min. RMS at 8 ohms, from 1 kHz with no more than 1% Total Harmonic Distortion
Total harmonic distortion	U : 0.1% (40 W, 1 kHz, 6 ohms, DIN AUDIO) HE, G, EZ : 0.1% (33 W, 1kHz, 6 ohms, DIN AUDIO/front)
Inputs	G, EZ, U : VIDEO/AUX : 150 mV (adjustable) PHONO : 250 mV (47 kohms) MIC 1, MIC 2 : 1 mV (20 kohms) HE : VIDEO/AUX : 250 mV (adjustable) PHONO : 400 mV (47 kohms) MIC 1, MIC 2 : 1.6 mV (20 kohms)
Outputs	HE, G, EZ : SUPER WOOFER : 2.0 V U : SUPER WOOFER : 2.25 V SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS : accept speakers of 16 ohms or more CENTER SPEAKER : accepts speakers of 8 ohms more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO$_2$ tape : 50 Hz – 16000 Hz Normal tape : 50 Hz –15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO$_2$ tape peak level, above 400 Hz)
Recording system	AC bias
Heads	Deck 1 : Playback head x1 Deck 2 : Recording/playback/ erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (l =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.03% (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX–Z270>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 220 mm cone type Tweeter : 60 mm cone type Super tweeters : 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	90 dB/W/m
Dimensions (W x H x D)	260 x 444 x 270 mm
Weight	4.6 kg

<Speaker system SX–Z27>

Cabinet type	3 way, bass reflex with surround speaker
Speakers	Woofer : 220 mm cone type Tweeter : 60 mm cone type Super tweeters : 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	90 dB/W/m
Dimensions (W x H x D)	260 x 444 x 300 mm (10$^1/_4$ x 17$^1/_2$ x 11$^7/_8$ in.)
Weight	5.8 kg (12 lbs 13 oz.)

<Speaker system SX-Z2890>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 250 mm cone type Tweeter : 60 mm cone type x 2 Super tweeter : 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	91 dB/W/m
Dimensions (W x H x D)	350 x 850 x 330 mm
Weight	15 kg

<General>

Power requirements	HE : 120 V/ 220 – 230 V/240 AC, switchable 50/60 Hz G, EZ : 230-240 V AC, fixed, 50/60 Hz U : 120 V AC, 60 Hz
Power consumption	HE : 190 W G, EZ : 215 W U : 140 W
Dimensions of main unit (W x H x D)	360 x 394.5 x 375.5 mm (14$^1/_4$ x 15$^5/_8$ x 14$^7/_8$ in.)
Weight of main unit	11 kg (24 lbs 4 oz.)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories Licensing Corporation.
- Manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY", the double-D symbol ▯▯ and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

CD DISASSEMBLY INSTRUCTIONS

1. ピックアップの交換方法
   1）TRAY をｵｰﾌﾟﾝさせる。
      stopper を矢印の方向へ押し、SHAFT SLED 半分だけ抜く。
   2）GEAR MAIN CAMを反時計方向（“a” の方向）に回し、figure 1のようにCDﾒｶを持ち上げる。
   3）SHAFT SLED を抜く。
   4）CDﾒｶを下げてPICK UPを交換する。
   5）CDﾒｶをfigure 1のように上げて、SHAFT SLEDを取り付ける。

1. How to replace PICK UP.
   1) Open the TRAY.
      Push the stopper to arrow direction and release half of the SHAFT SLED.
   2) Turn GEAR MAIN CAM to the counterclockwise (arrow “a”) direction, and lift up CD mechanism. (figure 1)
   3) Remove SHAFT SLED.
   4) CD mechanism in down position, replace PICK UP.
   5) Lift up CD mechanism (figure 1), and Reassemble the SHAFT SLED.

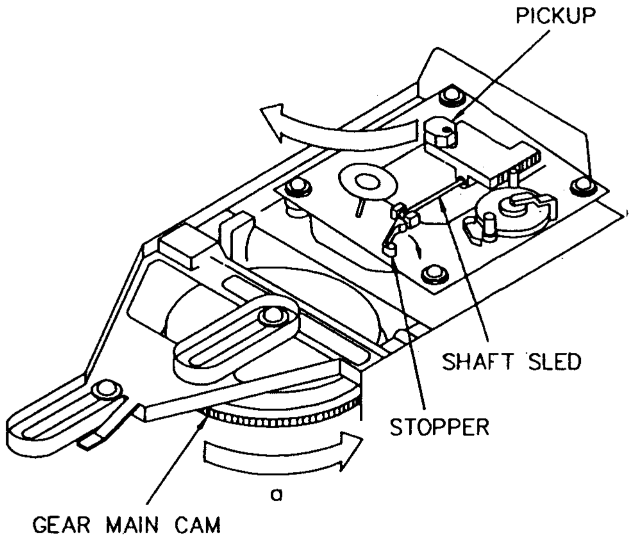


Figure 1

2．5巻ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸの外し方 (figure 2)
   1）CD基板のFFC２本を外し、ﾋﾞｽ5本を外す。
   2）５巻ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸを後から持ち上げて外す。
      （PANEL TRAY を外さなくても、５ﾁｪﾝｼﾞｬｰﾌﾞﾛｯｸを後から外すことができる。）

2 . How to remove 5CD CHANGER BLOCK (figure 2)
   1) Remove the two FFC of the CD circuit board, and remove the five SCREWS.
   2) Lift 5 CD CHANGER BLOCK from behind, and remove it.
      (5CD CHANGER BLOCK can be removed even if PANEL TRAY are not removed.)

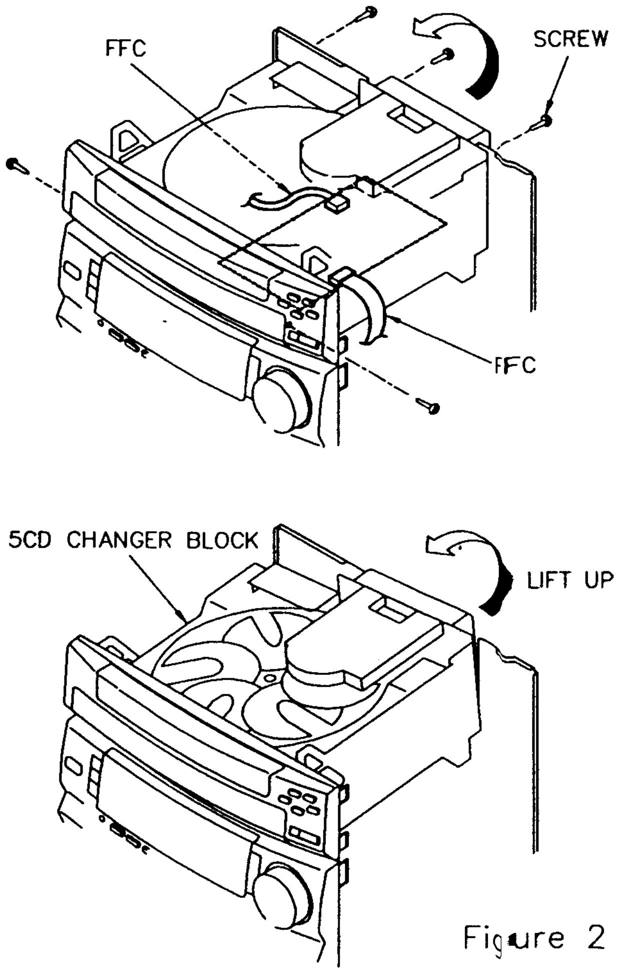


Figure 2

3 TRAYの分解・組立て方法

（1）分解方法

1）CHAS MECHA 下部のPLATE GEARのﾎﾞｽを外側（矢印 "b" 方向）に強く押す。(figure 3)

（TRAYが少しせり出すのを確認する）

2）TRAYをｵｰﾌﾟﾝ位置まで引き出す。

3）FFCを抜き、両ｻｲﾄﾞのCHAS MECH ﾂﾒ（2ケ所）を押してTRAYを外す。(figure 4)

3. The disassemble and reassemble the TRAY

(1) Disassembling procedure.

1) Push the PLATE GEAR'S Bossat the bottom part of CHAS MECHA strongly to the outside (arrow "b" direction). (figure 3)
(Confirm that TRAY appears a little in the front.)

2) Draw TRAY to the open position.

3) Remove FFC, and push the two LEVERS at both side of the CHAS MECH to remove TRAY. (figure 4)

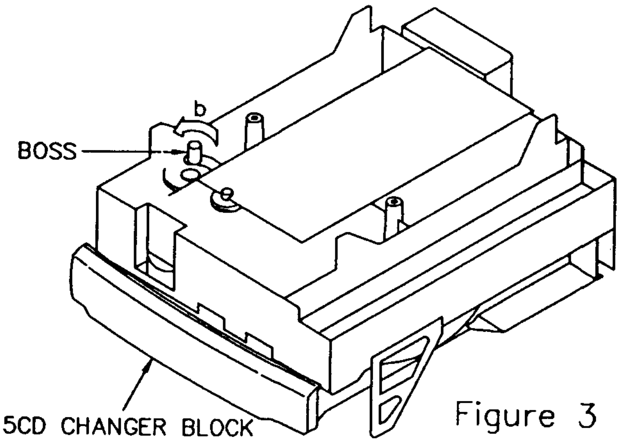
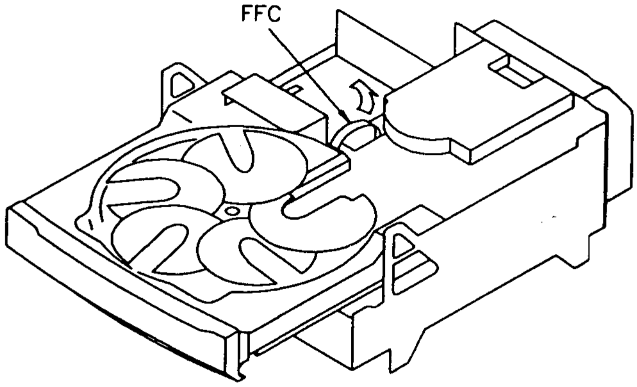


Figure 3



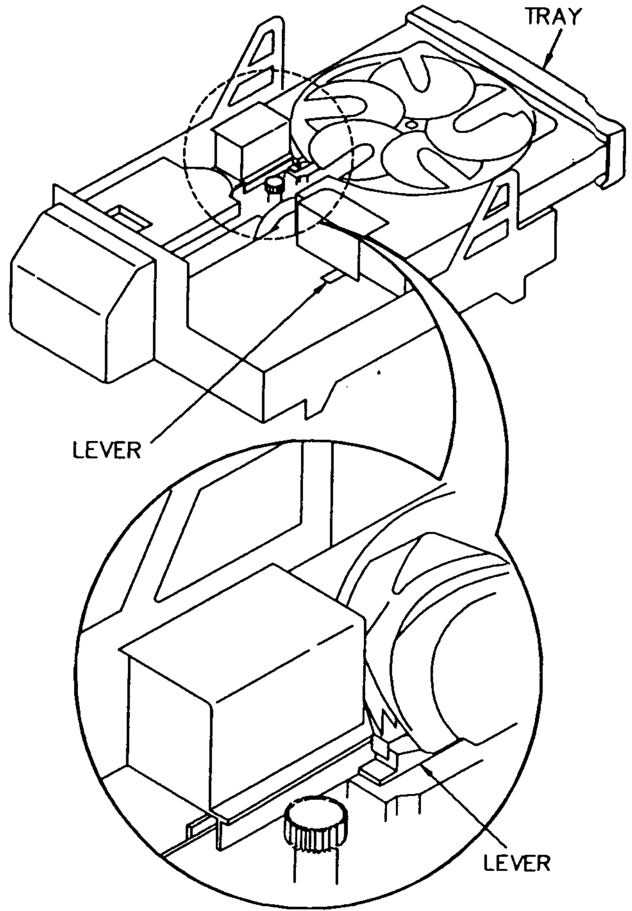


Figure 4

（2）組立て方法

1） LEVER TRAY が figure 5 の位置で、CD ﾒｶが下がっていることを確認する .

2） TRAY をCHAS MECHAのﾚｰﾙに沿って組み込む。

3） 半分までTRAY を組み込んだらFFCを差し、TRAYを最後まで押し入れる。(figure 6)

(2) Reassembling procedure.

1) Confirm that LEVER TRAY is at the most right position in order for the CD Mechanism to be in the down position. (figure 5)

2) Push in the TRAY along the rail of the CHAS MECHA.

3) After TRAY is half closed and FFC is put in, it can enter by force until the end of TRAY closed. (figure 6)

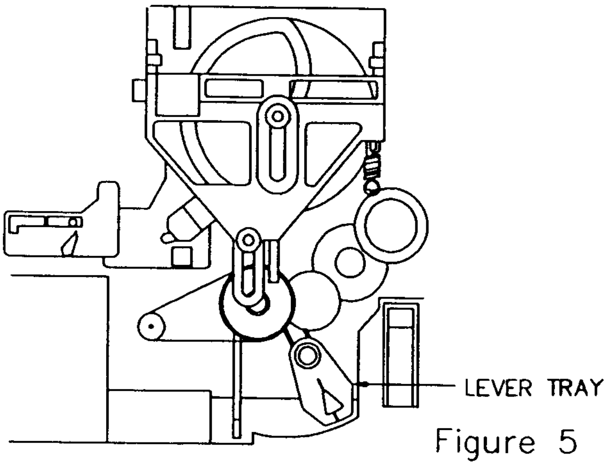


Figure 5

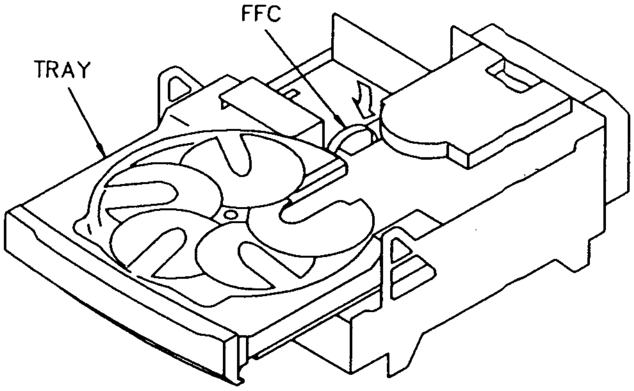


Figure 6

4. ﾀｰﾝﾃｰﾌﾞﾙの組立方法 (figure 7)

1）LEVER TT を “C” の方向に押しながら、TURN TABLE 5CD を組み込む。(figure 7) この時、TRAY 5CD とTURN TABLE 5CD の切り欠きが同じ方向になるようにする。(figure 8)

＊ 組み込む際のTURN TABLE 5CDのCD番号（1～5）は任意で構いません。(figure 7)

4 . How to reassemble the TURN TABLE. (figure 7)

1) Push LEVER TT in the direction of "C", and put in the TURN TABLE 5CD. (figure 7) After reassembly, one of the TURN TABLE DISC TRAY (can be either one of the five disc trays) must be aligned with TURN TABLE 5CD. (figure 8) That is, having no gap difference between the TURN TABLE 5CD and the TRAY 5CD.

＊ When reassembling the TURN TABLE 5CD, it is acceptable facing any CD numbe r (1～5).

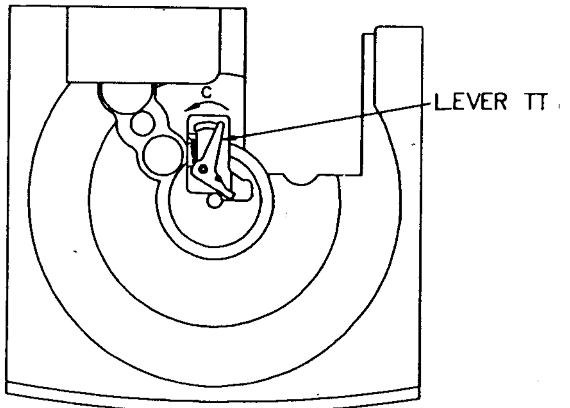


Figure 7

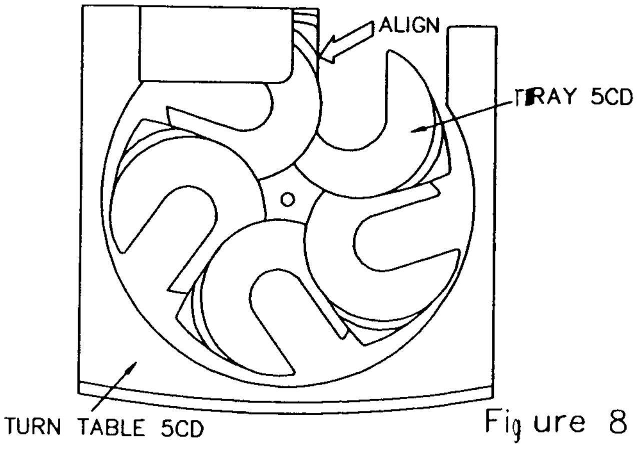


Figure 8

ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	86-MAR-611-010		IC,LC866440W-5B29
	87-070-083-019		IC,GP1U281X
	87-017-914-019		IC,BU4094 BC
	87-A20-104-019		IC,STK405-120A<EXCEPT U>
	87-070-232-019		IC,BA3834S
	87-070-121-010		IC,HA12185NT
	87-001-874-019		IC,HA12134A
	87-A20-107-019		IC,BA3836
	87-017-804-019		IC,BU4052BC
	87-017-888-089		IC,NJM4558MD
	87-A20-068-049		C-IC,M65847FP<HE>
	87-A20-069-049		C-IC,BA3842F
	87-070-127-119		IC,LC72131
	87-017-714-119		IC,LA1836
	87-017-915-019		IC,BU4094 BCF
	87-020-454-010		IC,DN6851
	87-001-982-019		IC,TA7291S
	87-070-305-019		IC,BA6897S
	87-017-745-019		IC,CXA1782BQ
	87-070-294-019		IC,CXD2508AQ
	87-A20-062-019		IC,STK405-130<U>
	87-A20-067-040		C-IC,M65849FP
	87-A20-082-010		C-IC,NJW1102AFG1
	87-070-163-019		IC,STK405-030
TRANSISTOR			
	89-213-702-019		TR 2SB1370E
	89-324-121-089		C-TR,2SC2412K
	89-113-187-089		TR,2SA1318TU
	87-026-226-089		C-TR,DTA143EK
	87-026-610-089		TR,KTC3198GR
	89-332-665-089		TR,2SC3266GR
	89-337-221-389		C-TR 2SC3722K
	89-327-125-089		C-TR,2SC2712GR
	89-111-625-089		C-TR,2SA1162GR
	87-026-211-089		C-TR,DTA144EK T147
	89-109-521-089		TR,2SA952K
	87-026-230-089		C-TR,DTA114YK
	89-333-266-089		C-TR,2SC3326B
	87-026-609-089		TR,KTA1266GR
	89-109-705-088		TR,2SA970GR
	89-502-466-089		TR,FET 2SK246-BL (TPE2)
	89-333-317-089		TR,2SC3331T
	89-112-965-089		TR,2SA1296GR
	89-406-555-089		TR,2SD655E
	89-113-187-889		TR,2SA1318TU
	87-026-238-089		C-TR,DTC144WK
	87-026-210-089		C-TR,DTC144EK T147
	87-026-261-089		C-TR,RN1404
	87-026-214-089		TR,DTA114YS
	89-327-143-089		C-TR,2SC2714 (O)
	89-505-434-549		C-FET,2SK543-T/B(4/5)
	87-026-608-089		C-TR,DTC123JK
	87-026-233-089		C-TR,DTA114TK
	87-026-223-089		C-TR,DTC143TK
	87-026-239-089		C-TR,DTC114TK
	87-A30-047-089		TR,CSD655E
	87-026-463-089		TR,2SA933S (RS)
	89-110-155-089		TR,2SA1015GR
	89-320-011-089		TR,2SC2001K
	89-421-722-389		TR,2SD2172 V/W
	89-421-141-288		C-TR,2SD2114K,UV<G,EZ>
	87-026-269-089		TR,DTA114ES<G,EZ>
DIODE			
	87-001-914-089		ZENER UTZJ 6.2B
	87-020-465-089		DIODE,1SS133
	87-A40-115-069		DIODE,RS603M
	87-070-136-089		ZENER,MTZJ5.1B
	87-070-274-089		DIODE,1N4003 SEM
	87-020-331-089		C-DIODE,DAN202K
	87-020-027-089		C-DIODE,1SS184
	87-020-125-089		C-DIODE,1SS181
	87-017-174-089		ZENER,HZS11A3L
	87-017-147-089		ZENER,HZS33-2
	87-001-559-089		DIODE 1SS131 (T-72)
	87-002-608-089		DIODE,DSF10TC<EXCEPT U>
	87-A40-184-069		DIODE,RK34(F)<U>
	87-001-636-089		ZENER,HZS3C1
	87-017-091-089		ZENER,HZS5C1<HE>
	87-017-437-089		DIODE,1N4148M
	87-017-148-089		ZENER,HZS6A1L
	87-A40-116-069		DIODE,RS403LB-D-51<U>
	87-020-691-089		DIODE,1SS132
	87-017-093-089		ZENER,HZS5C3
	87-001-290-089		ZENER,HZS6B1L
MAIN C.B			
C101	87-016-474-099		CAP,E 3300-50<EXCEPT U>
C101	87-016-520-099		CAP,E 3300-65 BP SMG<U>
C102	87-016-474-099		CAP,E 3300-50<EXCEPT U>
C102	87-016-520-099		CAP,E 3300-65 BP SMG<U>
C104	87-010-235-089		CAP,E 470-16 SME
C105	87-010-235-089		CAP,E 470-16 SME
C106	87-010-409-089		CAP,E 220-50 SME
C107	87-010-247-089		CAP,E 100-50 SME
C108	87-010-247-089		CAP,E 100-50 SME
C109	87-010-263-089		CAP,E 100-10 SME 5X11
C112	87-010-382-089		CAP,E 22-25 SME
C113	87-010-403-089		CAP,E 3.3-50 SME
C116	87-012-140-089		C-CAP,S 470P-50 CH
C121	87-012-368-089		C-CAP,S 0.1-50 F
C122	87-012-368-089		C-CAP,S 0.1-50 F
C123	87-018-209-089		CAP,TC-U 0.1-50 F
C124	87-012-368-089		C-CAP,S 0.1-50 F
C145	87-010-186-089		C-CAP,S 4700-50 BK
C146	87-010-186-089		C-CAP,S 4700-50 BK
C152	87-010-260-089		CAP,E 47-25 SME
C171	87-016-565-099		CAP,E 4700-25(JAM1)
C172	87-016-565-099		CAP,E 4700-25(JAM1)<U>
C173	87-010-196-089		C-CAP,S 0.1-25 F
C174	87-010-196-089		C-CAP,S 0.1-25 F
C175	87-010-196-089		C-CAP,S 0.1-25 F
C176	87-015-785-089		C-CAP,0.1-25 F
C220	87-010-194-089		C-CAP,S 0.047-25 F
C221	87-010-544-089		CAP,E 0.1-50 SME
C222	87-010-544-089		CAP,E 0.1-50 SME
C223	87-010-187-089		C-CAP,S 5600P-50 B
C224	87-010-187-089		C-CAP,S 5600P-50 B
C225	87-010-178-089		C-CAP,S 1000P-50 B
C226	87-010-178-089		C-CAP,S 1000P-50 B
C227	87-010-405-089		CAP,E 10-50 SME
C228	87-010-405-089		CAP,E 10-50 SME
C229	87-010-405-089		CAP,E 10-50 SME
C230	87-010-405-089		CAP,E 10-50 SME
C231	87-010-147-089		C-CAP,S 3P-50 CH
C232	87-018-098-089		CAP,TC-U 3.3P-50 SL
C233	87-010-196-089		C-CAP,S 0.1-25 F
C234	87-010-196-089		C-CAP,S 0.1-25 F
C235	87-010-196-089		C-CAP,S 0.1-25 F
C236	87-010-196-089		C-CAP,S 0.1-25 F
C239	87-018-134-089		CAP,TC-U 0.01-16 Y<G,EZ>
C240	87-018-134-089		CAP,TC-U 0.01-16 Y<G,EZ>
C241	87-010-197-089		C-CAP,S 0.01-25 B<G,EZ>
C242	87-010-197-089		C-CAP,S 0.01-25 B<G,EZ>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C243	87-010-318-089		C-CAP,S 47P-50 CH<G,EZ>
C244	87-010-318-089		C-CAP,S 47P-50 CH<G,EZ>
C249	87-018-209-089		CAP,TC-U 0.1-50 F
C250	87-A10-200-089		CAP,E 10-100 BP<U>
C251	87-018-127-089		CAP,TC-U 470-50 KB<G,EZ>
C252	87-012-140-089		C-CAP,S 470-50 CH<G,EZ>
C260	87-015-785-089		C-CAP,0.1-25 F
C261	87-010-197-089		C-CAP,S 0.01-25 BK<G,EZ>
C301	87-010-318-089		C-CAP,S 47P-50 CH
C302	87-010-318-089		C-CAP,S 47P-50 CH
C303	87-012-157-089		C-CAP,S 330P-50 CH
C304	87-012-157-089		C-CAP,S 330P-50 CH
C305	87-012-145-089		C-CAP,S 270P-50 CH
C306	87-012-145-089		C-CAP,S 270P-50 CH
C307	87-010-196-089		C-CAP,S 0.1-25 F
C311	87-010-198-089		C-CAP,S 0.022-25 B
C312	87-010-198-089		C-CAP,S 0.022-25 B
C313	87-010-183-089		C-CAP,S 2700P-50 B
C314	87-010-183-089		C-CAP,S 2700P-50 B
C315	87-010-179-089		C-CAP,S 1200P-50 B
C316	87-010-179-089		C-CAP,S 1200P-50 B
C317	87-012-142-089		C-CAP,S 0.33-16 F
C318	87-012-142-089		C-CAP,S 0.33-16 F
C319	87-012-141-089		C-CAP,S 0.22-16 F
C320	87-012-141-089		C-CAP,S 0.22-16 F
C321	87-010-196-089		C-CAP,S 0.1-25 F
C322	87-010-196-089		C-CAP,S 0.1-25 F
C324	87-010-260-089		CAP,E 47-25 SME
C325	87-010-370-089		CAP,E 330-6.3 SME
C326	87-010-196-089		C-CAP,S 0.1-25 F
C330	87-010-401-089		CAP,E 1-50 SME
C332	87-015-785-089		C-CAP,0.1-25 F
C335	87-010-805-089		C-CAP,S 1-16F
C336	87-010-805-089		C-CAP,S 1-16F
C337	87-010-196-089		C-CAP,S 0.1-25 F
C338	87-010-196-089		C-CAP,S 0.1-25 F
C339	87-010-196-089		C-CAP,S 0.1-25 F
C340	87-015-785-089		C-CAP,0.1-25 F
C351	87-012-154-089		C-CAP,S 150P-50 CH
C352	87-012-154-089		C-CAP,S 150P-50 CH
C451	87-012-140-089		C-CAP,S 470P-50 CH
C452	87-012-140-089		C-CAP,S 470P-50 CH
C453	87-010-178-089		C-CAP,S 1000P-50 B
C454	87-010-175-089		C-CAP,S 560P-50 SL<G,EZ>
C455	87-010-178-089		C-CAP,S 1000P-50 B<G.EZ>
C456	87-010-408-089		CAP,E 47-50 SME
C457	87-010-197-089		C-CAP,S 0.01-25 B
C458	87-010-183-089		C-CAP,S 2700P-50 B
C459	87-010-183-089		C-CAP,S 2700P-50 B
C460	87-010-183-089		C-CAP,S 2700P-50 B
C470	87-010-196-089		C-CAP,S 0.1-25 F
C501	87-010-179-089		C-CAP,S 1200P-50 B
C502	87-010-179-089		C-CAP,S 1200P-50 B
C503	87-012-155-089		C-CAP,S 180P-50 CH
C504	87-012-155-089		C-CAP,S 180P-50 CH
C515	87-010-545-089		CAP,E 0.22-50 SME
C516	87-010-545-089		CAP,E 0.22-50 SME
C519	87-015-785-089		C-CAP,0.1-25 F
C521	87-010-196-089		C-CAP,S 0.1-25 F
C522	87-010-318-089		C-CAP,S 47P-50 CH
C523	87-010-197-089		C-CAP,S 0.01-25 B
C524	87-010-402-089		CAP,E 2.2-50 SME
C525	87-010-184-089		C-CAP,S 3300P-50 B
C526	87-010-196-089		C-CAP,S 0.1-25 F
C527	87-010-401-089		CAP,E 1-50 SME
C528	87-010-401-089		CAP,E 1-50 SME
C529	87-010-384-089		CAP,E 100-25 SME
C530	87-010-197-089		C-CAP,S 0.01-25 B
C531	87-010-183-089		C-CAP,S 2700P-50 B
C532	87-015-835-088		C-CAP,0.047-25 B K
C533	87-010-196-089		C-CAP,S 0.1-25 F
C534	87-010-263-089		CAP,E 100-10 SME 5X11
C535	87-010-401-089		CAP,E 1-50 SME
C536	87-010-401-089		CAP,E 1-50 SME
C537	87-010-545-089		CAP,E 0.22-50 SME
C538	87-012-142-089		C-CAP,S 0.33-16 F<HE>
C540	87-010-196-089		C-CAP,S 0.1-25 F
C541	87-010-196-089		C-CAP,S 0.1-25 F
C542	87-010-405-089		CAP,E 10-50 SME
C543	87-010-546-089		CAP,E 0.33-50 SME
C544	87-010-546-089		CAP,E 0.33-50 SME
C547	87-015-632-089		C-CAP,0.015-50 BK<EXCEPT U>
C547	87-015-822-089		C-CAP,0.022<U>
C548	87-015-632-089		C-CAP,0.015-50 BK<EXCEPT U>
C548	87-015-822-089		C-CAP,0.022<U>
C551	87-010-176-089		C-CAP,S 680P-50 SL
C552	87-010-176-089		C-CAP,S 680P-50 SL
C553	87-015-627-089		C-CAP,1000P-50 B
C554	87-015-627-089		C-CAP,1000P-50 B
C555	87-016-461-089		C-CAP,S 0.47-16 ZF
C556	87-016-461-089		C-CAP,S 0.47-16 ZF
C641	87-010-196-089		C-CAP,S 0.1-25 F
C642	87-010-196-089		C-CAP,S 0.1-25 F
C650	87-010-263-089		CAP,E 100-10 SME 5X11<HE>
C651	87-010-196-089		C-CAP,S 0.1-25 F<HE>
C652	87-010-408-089		CAP,E 47-50 SME<HE>
C653	87-012-154-089		C-CAP,S 150P-50 CH<HE>
C659	87-A10-060-089		C-CAP,S 0.18-16 KB<HE>
C660	87-A10-060-089		C-CAP,S 0.18-16 KB<HE>
C661	87-012-154-089		C-CAP,S 150P-50 CH<HE>
C662	87-012-145-089		C-CAP,S 270P-50 CH<HE>
C663	87-012-145-089		C-CAP,S 270P-50 CH<HE>
C664	87-012-154-089		C-CAP,S 150P-50 CH<HE>
C665	87-010-183-089		C-CAP,S 2700P-50 B<HE>
C666	87-010-196-089		C-CAP,S 0.1-25 F<HE>
C667	87-010-177-089		C-CAP,S 820P-50 SL<HE>
C668	87-010-177-089		C-CAP,S 820P-50 SL<HE>
C669	87-010-196-089		C-CAP,S 0.1-25 F<HE>
C670	87-010-196-089		C-CAP,S 0.1-25 F<HE>
C671	87-010-196-089		C-CAP,S 0.1-25 F<HE>
C672	87-010-183-089		C-CAP,S 2700P-50 B<HE>
C673	87-010-316-089		C-CAP,S 33P-50 CH<G,EZ>
C674	87-010-316-089		C-CAP,S 33P-50 CH<G,EZ>
C675	87-010-318-089		C-CAP,S 47P-50 CH<G,EZ>
C676	87-010-318-089		C-CAP,S 47P-50 CH<G,EZ>
C677	87-018-115-089		CAP,TC-U 47P-50 SL
C678	87-010-318-089		C-CAP,S 47P-50 CH
C701	87-010-381-089		CAP,E 330-16 SME
C702	87-010-404-089		CAP,E 4.7-50 SME
C703	87-010-197-089		C-CAP,S 0.01-25 B
C704	87-010-197-089		C-CAP,S 0.01-25 B
C711	87-010-263-089		CAP,E 100-10 SME 5X11
C712	87-010-196-089		C-CAP,S 0.1-25 F
C722	87-010-152-089		C-CAP,S 8P-50 CH
C723	87-010-178-089		C-CAP,S 1000P-50 B
C725	87-010-178-089		C-CAP,S 1000P-50 B
C727	87-010-196-089		C-CAP,S 0.1-25 F
C728	87-010-248-089		CAP,E 220-10 SME
C735	87-018-209-089		CAP,TC-U 0.1-50 F
C770	87-010-405-089		CAP,E 10-50 SME
C771	87-010-405-089		CAP,E 10-50 SME
C772	87-010-194-089		C-CAP,S 0.047-25 F
C773	87-010-196-089		C-CAP,S 0.1-25 F<G,EZ>
C774	87-010-263-089		CAP,E 100-10 SME 5X11
C775	87-010-405-089		CAP,E 10-50 SME
C776	87-010-197-089		C-CAP,S 0.01-25 B
C777	87-010-400-089		CAP,E 0.47-50 SME
C778	87-010-401-089		CAP,E 1-50 SME
C779	87-010-401-089		CAP,E 1-50 SME
C780	87-010-197-089		C-CAP,S 0.01-25 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C781	87-010-405-089		CAP,E 10-50 SME
C782	87-010-405-089		CAP,E 10-50 SME
C785	87-010-197-089		C-CAP,S 0.01-25 B
C786	87-010-197-089		C-CAP,S 0.01-25 B
C787	87-010-184-089		C-CAP,S 3300P-50 B
C788	87-010-184-089		C-CAP,S 3300P-50 B
C789	87-015-826-089		C-CAP,1200-50 B K<U,HE>
C789	87-010-179-089		C-CAP,S 1200-50 B K<G,EZ>
C790	87-010-179-089		C-CAP,S 1200P-50 B
C791	87-010-401-089		CAP,E 1-50 SME
C792	87-010-180-089		C-CAP,S 1500P-50 B<U,HE>
C792	87-010-182-089		C-CAP,S 2200P-50 B<G,EZ>
C793	87-010-189-089		C-CAP,S 8200P-50 B
C794	87-010-408-089		CAP,E 47-50 SME<U>
C795	87-010-194-089		C-CAP,S 0.047-25 F
C796	87-010-403-089		CAP,E 3.3-50 SME<U>
C802	87-010-197-089		C-CAP,S 0.01-25 B
C803	87-018-134-089		CAP,TC-U 0.01-16 Y
C814	87-010-196-089		C-CAP,S 0.1-25 F
C815	87-018-134-089		CAP,TC-U 0.01-16 Y<U,HE>
C817	87-010-197-089		C-CAP,S 0.01-25 B
C818	87-010-197-089		C-CAP,S 0.01-25 B
C819	87-010-197-089		C-CAP,S 0.01-25 B
C820	87-010-408-089		CAP,E 47-50 SME
C821	87-010-197-089		C-CAP,S 0.01-25 B
C823	87-010-197-089		C-CAP,S 0.01-25 B
C828	87-010-197-089		C-CAP,S 0.01-25 B
C829	87-010-197-089		C-CAP,S 0.01-25 B
C830	87-015-819-089		CHIP CAP 0.01
C835	87-010-197-089		C-CAP,S 0.01-25 B
C901	87-010-197-089		C-CAP,S 0.01-25 B
C902	87-015-785-089		C-CAP,0.1-25 F<G,EZ>
C902	87-010-196-089		C-CAP,0.1-25 F<U,HE>
C903	87-018-119-089		CAP,TC-U 100P-50 BK
C942	87-010-146-089		C-CAP,S 2P-50 CH<G,EZ>
C946	87-010-401-089		CAP,E 1-50 SME
C949	87-014-049-089		CAP,PP 470P-100 J<G,EZ>
C952	87-010-197-089		C-CAP,S 0.01-25 B<G,EZ>
C954	87-010-400-089		CAP,E 0.47-50 SME<G,EZ>
C957	87-010-315-089		C-CAP,S 27P-50 CH<G,EZ>
C958	87-010-197-089		C-CAP,S 0.01-25 B<G,EZ>
C960	87-010-196-089		C-CAP,S 0.1-25 F
C961	87-010-152-089		C-CAP,S 8P-50 CH<U>
C987	87-018-134-089		CAP,TC-U 0.01-16 Y
C990	87-010-197-089		C-CAP,S 0.01-25 B
C993	87-018-134-089		CAP,TC-U 0.01-16 Y
C995	87-010-197-089		C-CAP,S 0.01-25 B
C999	87-010-196-089		C-CAP,S 0.1-25 F
CF801	87-008-261-019		FLTR,SFE10.7MA5-A<U,HE>
CF801	87-008-423-019		CF,SFE10.7MS 3G-A<G,EZ>
CF802	87-008-261-019		FLTR,SFE10.7MA5-A<U,HE>
CF802	87-785-747-019		CF,MS2 GHY R<G,EZ>
⚠ F112	87-A90-172-019		FUSE,125V 251<U>
FFE801	86-NF4-670-019		FE PACK 2 EX-N<U,HE>
FFE801	A8-6ZA-191-039		6ZA-1 FEENM<G,EZ>
J252	87-099-794-019		JACK 6.3BLK W/S W
J253	87-099-801-019		JACK,PIN 1P BLK
J254	87-033-240-019		TERMINAL,SP 4P324V1-05
J652	87-A60-252-019		JACK,PIN 4P
J801	87-033-239-019		TERMINAL,HSP-154V-2<U,HE>
J801	87-033-241-019		TERMINAL,ANT AT-2039<G,EZ>
L101	87-003-383-019		COIL,1UH<EXCEPT U>
L102	87-003-383-019		COIL,1UH<EXCEPT U>
L403	87-A50-049-019		COIL,TRAP 85K(COI)
L404	87-A50-049-019		COIL,TRAP 85K(COI)
L451	87-007-342-019		COIL,OSC 85K BIAS
L701	87-003-293-019		COIL,TRAP MPX
L702	87-003-293-019		COIL,TRAP MPX
L721	87-003-102-089		COIL,10UH<G,EZ>
L741	87-A50-015-019		COIL,FM DET(TOK)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L742	87-A90-051-019		FLTR,CFAZ-450(TOK)
L770	87-003-102-089		COIL,10UH
L790	87-003-231-089		C-COIL,2125 1UH K MLF2
L832	87-005-847-089		COIL,2.2UH(CECS)
L941	87-A50-020-019		COIL,ANT LW(CO2)<G,EZ>
L942	87-A50-019-019		COIL,OSC LW(COI)<G,EZ>
L981	86-NF4-668-019		AM PACK 2(TOM)
⚠ PR112	87-026-689-089		PROTECTOR 1A 491 SERIES<EXCEPT U>
R105	87-022-600-089		RES,M/F 0.1-2W J
R106	87-022-600-089		RES,M/F 0.1-2W J
RY101	87-A90-143-019		RELAY,DG12D2-OS(M)
SFR301	87-024-174-089		SFR,33K DIA6 V
SFR302	87-024-174-089		SFR,33K DIA6 V
SFR303	87-024-174-089		SFR,33K DIA6 V
SFR304	87-024-174-089		SFR,33K DIA6 V
SFR305	87-024-175-089		SFR,47K DIA6 V
SFR306	87-024-175-089		SFR,47K DIA6 V
SFR451	87-024-175-089		SFR,47K DIA6 V
SFR452	87-024-175-089		SFR,47K DIA6 V
SFR722	87-024-171-089		SFR,4.7K DIA6 V
TC701	87-011-253-089		TRIMER,30P LAR
TC942	87-011-253-089		TRIMER,30P LAR<G,EZ>
TH241	87-A90-157-089		C-THMS,4.7K<EXCEPT U>
VR651	82-NF5-660-019		VR 50K BX2 RK14K 12A
W101	85-NF5-628-019		F-CABLE 7P-2.5
W604	83-NF5-632-019		CABLE FFC 6P-1.25
X703	84-508-618-019		VIB,CER CSB 456 F/5
X721	87-030-372-019		VIB,XTAL 7.2MHZ

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-313-089		C-CAP,S 18P-50 CH
C102	87-010-317-089		C-CAP,S 39P-50 CH
C103	87-010-311-089		C-CAP,S 12P-50 CH
C104	87-012-140-089		C-CAP,S 470P-50 CH
C105	87-010-196-089		C-CAP,S 0.1-25 F
C106	87-010-498-049		CAP,E 10-16 GAS
C107	87-010-263-089		CAP,E 100-10 SME 5X11
C108	87-010-494-049		CAP,E 1-50 GAS
C109	87-010-494-049		CAP,E 1-50 GAS
C110	87-010-248-089		CAP,E 220-10 SME
C111	87-010-805-089		C-CAP,S 1-16F
C112	87-010-196-089		C-CAP,S 0.1-25 F
C113	87-018-209-089		CAP,TC-U 0.1-50 F
C114	87-015-785-089		C-CAP,0.1-25 F
C201	87-010-281-049		CAP,E 22-35 5L
C202	87-010-281-049		CAP,E 22-35 5L
C203	87-010-405-089		CAP,E 10-50 SME
C204	87-010-196-089		C-CAP,S 0.1-25 F
C206	87-018-209-089		CAP,TC-U 0.1-50 F
C207	87-010-196-089		C-CAP,S 0.1-25 F
C208	87-010-196-089		C-CAP,S 0.1-25 F
C301	87-010-196-089		C-CAP,S 0.1-25 F
C302	87-010-196-089		C-CAP,S 0.1-25 F
C303	87-010-196-089		C-CAP,S 0.1-25 F
C304	87-010-196-089		C-CAP,S 0.1-25 F
C305	87-010-196-089		C-CAP,S 0.1-25 F
C306	87-010-180-089		C-CAP,S 1500P-50 KB
C501	87-010-112-049		CAP,E 100-16 SME
C603	87-010-196-089		C-CAP,S 0.1-25 F
C610	87-010-494-048		CAP,E 1-50 GAS
C699	87-018-127-089		CAP,TC-U 470P-50KB
C701	87-010-597-089		C-CAP,S 0.056-16 KR
C702	87-010-597-089		C-CAP,S 0.056-16 KR
C703	87-012-141-089		C-CAP,S 0.22-16 F
C704	87-012-141-089		C-CAP,S 0.22-16 F
C705	87-016-081-089		C-CAP,S 0.1-16 RK
C706	87-010-401-089		CAP,E 1-50 SME
C707	87-010-182-089		C-CAP,S 2200P-50 B
C708	87-010-182-089		C-CAP,S 2200P-50 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C709	87-012-141-089		C-CAP,S 0.22-16 F
C710	87-012-141-089		C-CAP,S 0.22-16 F
C711	87-010-401-089		CAP,E 1-50 SME
C712	87-010-401-089		CAP,E 1-50 SME
C713	87-010-260-089		CAP,E 47-25 SME
C714	87-010-405-089		CAP,E 10-50 SME
C715	87-010-555-049		CAP,E 100-10 GAS
C733	87-010-177-089		C-CAP,S 820P-50 B
C734	87-018-130-089		CAP,TC-U 820P-50BK
C853	87-010-196-089		C-CAP,S 0.1-25 F
FL101	86-MA4-609-019		FL,29U56100BA
L201	87-003-149-089		COIL,47UH
LED201	87-017-731-080		LED,SEL1510CM2
LED202	87-017-731-080		LED,SEL1510CM2
LED203	87-017-731-080		LED,SEL1510CM2
LED204	87-017-731-080		LED,SEL1510CM2
LED205	87-017-731-080		LED,SEL1510CM2
LED206	87-017-731-080		LED,SEL1510CM2
LED207	87-017-731-080		LED,SEL1510CM2
LED208	87-017-731-080		LED,SEL1510CM2
LED209	87-017-731-080		LED,SEL1510CM2
LED210	87-017-731-080		LED,SEL1510CM2
LED211	87-017-785-080		LED,SEL 4214S
LED212	87-017-785-080		LED,SEL 4214S
LED213	87-017-785-080		LED,SEL 4214S
LED214	87-017-785-080		LED,SEL 4214S
LED215	87-017-785-080		LED,SEL 4214S
LED216	87-017-297-080		LED,SEL1550CM TP7
LED217	87-017-297-080		LED,SEL1550CM TP7
LED218	87-017-297-080		LED,SEL1550CM TP7
LED219	87-017-297-080		LED,SEL1550CM TP7
LED220	87-017-297-080		LED,SEL1550CM TP7
LED221	87-017-297-080		LED,SEL1550CM TP7
LED224	87-070-270-010		LED,SEL1510CM2 LF34
LED225	87-070-300-010		LED,SEL1250SM LF34
LED226	87-070-270-010		LED,SEL1510CM2 LF34
LED227	87-070-270-010		LED,SEL1510CM2 LF34
LED228	87-070-300-010		LED,SEL1250SM LF34
LED229	87-070-270-010		LED,SEL1510CM2 LF34
LED711	87-017-785-080		LED,SEL 4214S
LED712	87-017-785-080		LED,SEL 4214S
LED713	87-017-785-080		LED,SEL 4214S
LED714	87-017-785-080		LED,SEL 4214S
LED715	87-017-785-080		LED,SEL 4214S
LED910	87-017-785-080		LED,SEL 4214S
LED911	87-017-785-080		LED,SEL 4214S
LED912	87-017-785-080		LED,SEL 4214S
LED913	87-017-731-080		LED,SEL 1510CM2
LED914	87-017-731-080		LED,SEL 1510CM2
LED915	87-017-731-080		LED,SEL 1510CM2
S201	87-036-215-089		SW,TACT EVQ21404M
S202	87-036-215-089		SW,TACT EVQ21404M
S203	87-036-215-089		SW,TACT EVQ21404M
S204	87-036-215-089		SW,TACT EVQ21404M
S205	87-036-215-089		SW,TACT EVQ21404M<HE>
S206	87-036-215-089		SW,TACT EVQ21404M<HE>
S207	87-036-215-089		SW,TACT EVQ21404M
S208	87-036-215-089		SW,TACT EVQ21404M
S209	87-036-215-089		SW,TACT EVQ21404M
S210	87-036-215-089		SW,TACT EVQ21404M
S211	87-036-215-089		SW,TACT EVQ21404M
S215	87-036-215-089		SW,TACT EVQ21404M
S216	87-036-215-089		SW,TACT EVQ21404M
S217	87-036-215-089		SW,TACT EVQ21404M
S218	87-036-215-089		SW,TACT EVQ21404M
S219	87-036-215-089		SW,TACT EVQ21404M
S220	87-036-215-089		SW,TACT EVQ21404M
S224	87-036-215-089		SW,TACT EVQ21404M
S225	87-A90-095-089		SW,TACT EVQ11G04M
S226	87-A90-095-089		SW,TACT EVQ11G04M
S227	87-036-215-089		SW,TACT EVQ21404M
S228	87-A90-095-089		SW,TACT EVQ11G04M
S229	87-A90-095-089		SW,TACT EVQ11G04M
S230	87-A90-095-089		SW,TACT EVQ11G04M
S231	87-A90-095-089		SW,TACT EVQ11G04M
S232	87-A90-095-089		SW,TACT EVQ11G04M
S233	87-036-215-089		SW,TACT EVQ21404M
S234	87-036-215-089		SW,TACT EVQ21404M
S235	87-036-215-089		SW,TACT EVQ21404M
VR601	85-MA2-605-019		VR,10KB
VR602	86-MA4-612-019		VR,RTRY 10KA
W104	84-MA1-692-119		CABLE FFC,14P-1.25
W401	86-MA4-608-019		F-CABLE,8P-2.0
W501	85-MA2-602-019		CABLE,FFC 15P-1.25
X101	87-030-376-089		VIB,CER CSA5.76MG200

MIC C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C601	87-010-545-049		CAP E 0.22-50 SME
C602	87-010-321-089		C-CAP,S 82P-50 CH
C604	87-010-318-089		C-CAP,S 470P-50 CH
C605	87-010-177-089		C-CAP,S 820P-50 SL
C606	87-010-112-089		CAP,E 100-16
C608	87-010-406-049		CAP,E 22-50 SME
C611	87-010-560-049		CAP,E 10-50 GAS
C613	87-010-186-089		C-CAP,S 4700P-50 B
FB6	87-008-372-089		FLTR,EMI BL OIRNI
J601	87-099-659-019		JACK,6.3 JY-6314-01130
J602	87-099-659-019		JACK,6.3 JY-6314-01130

CD KEY C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C401	87-010-197-089		C-CAP,S 0.01-25 B
LED401	87-017-785-080		LED,SEL4214S
LED402	87-017-785-080		LED,SEL4214S
LED403	87-017-785-080		LED,SEL4214S
LED404	87-017-785-080		LED,SEL4214S
LED405	87-017-785-080		LED,SEL4214S
S401	87-036-215-088		SW,TACT EVQ21404M
S402	87-036-215-088		SW,TACT EVQ21404M
S403	87-036-215-088		SW,TACT EVQ21404M
S404	87-036-215-088		SW,TACT EVQ21404M
S405	87-036-215-088		SW,TACT EVQ21404M
S406	87-036-215-088		SW,TACT EVQ21404M
S407	87-036-215-088		SW,TACT EVQ21404M

AC C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ C103	87-010-196-019		C-CAP,S 0.1-25F<G>
⚠ CF101	87-033-213-089		CLAMP FUSE SMK<U>
⚠ CF102	87-033-213-089		CLAMP FUSE SMK<U>
⚠ CF103	87-033-213-089		CLAMP FUSE SMK<U>
⚠ CF104	87-033-213-089		CLAMP FUSE SMK<U>
⚠ F101	87-026-690-019		FUSE,5A 125V<U>
⚠ F102	87-026-690-019		FUSE,5A 125V<U>
⚠ F103	87-026-690-019		FUSE,5A 125V 251<U>
⚠ F104	87-026-690-019		FUSE,5A 125V 251<U>
⚠ PR101	87-026-682-089		PROTECTOR,10A 60V 491<EXCEPT U>
⚠ PR102	87-026-682-089		PROTECTOR,10A 60V 491<EXCEPT U>
⚠ PR103	87-026-681-089		PROTECTOR,5A 60V 491<EXCEPT U>
⚠ PR104	87-026-681-089		PROTECTOR,5A 60V 491<EXCEPT U>

PT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠	82-304-743-019		TERMINAL,1P
⚠ CF101	87-033-213-019		CLAMP,FUSE SMK<U>
⚠ CF101	87-033-147-019		FUSE,CLAMP MT-20<HE>
⚠ CF102	87-033-213-019		CLAMP,FUSE SMK<U>
⚠ CF102	87-033-147-019		FUSE,CLAMP MT-20<HE>
⚠ F101	87-035-367-019		FUSE,3.15A 250V<HE>
⚠ F109	87-035-366-019		FUSE,2.5A 250V<G,EZ>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
⚠ F109	87-035-192-019		FUSE,4A 250V<U>
⚠ PT1	86-MAR-603-019		PT,EZ<G,EZ>
⚠ PT1	86-MAR-604-019		PT,U<U>
⚠ PT1	86-MAR-610-019		PT,H<HE>
⚠ SW101	87-A90-165-019		SW,SL1-2-3<HE>

PRO MVR C.B

C271	87-010-402-089		CAP,E 2.2-50 SME
C272	87-010-402-089		CAP,E 2.2-50 SME
C273	87-010-405-089		CAP E 10-50 SME
C274	87-010-405-089		CAP E 10-50 SME
C281	87-010-402-089		CAP,E 2.2-50 SME
C282	87-010-402-089		CAP,E 2.2-50 SME
C283	87-010-402-089		CAP,E 2.2-50 SME
C284	87-010-402-089		CAP,E 2.2-50 SME
C285	87-010-263-089		CAP, E 100-10 SME 5X11
C622	87-010-194-089		C-CAP,S 0.047-25 F
C648	87-012-156-089		C-CAP,S 220P-50 CH
C650	87-010-319-089		C-CAP,S 56P-50 CH
C651	87-010-319-089		C-CAP,S 56P-50 CH
C653	87-012-358-089		C-CAP S 0.47-10FZ
C654	87-010-178-089		C-CAP,S 1000P-50 B
C656	87-010-196-089		C-CAP,S 0.1-25 F
C659	87-010-181-089		C-CAP,S 1800P-50 B
C660	87-010-426-089		C-CAP,S 0.012-25 B
C661	87-012-358-089		C-CAP S 0.47-10FZ
C662	87-010-179-089		C-CAP S 1200P-50B
C663	87-010-263-089		CAP,E 100-10 SME 5X11
C664	87-012-141-089		C-CAP,S 0.22-16 F
C665	87-010-180-089		C-CAP,S 1500P-50 B
C666	87-010-180-089		C-CAP,S 1500P-50 B
C667	87-010-177-089		C-CAP,S 820P-50 SL
C668	87-010-182-089		C-CAP,S 2200P-50 B
C669	87-010-497-049		CAP,E 4.7-35 SME
C671	87-010-197-089		C-CAP,S 0.01-25 B
C673	87-A10-230-089		C-CAP,S 0.68-25 F
C700	87-010-198-089		C-CAP,S 0.022-25 B
C801	87-010-176-089		C-CAP,S 680P-50 SL
C802	87-010-176-089		C-CAP,S 680P-50 SL
C807	87-010-378-089		CAP,E 10-16 SME
C808	87-010-378-089		CAP,E 10-16 SME
C809	87-016-456-089		CAP,E 22-16 LLA
C810	87-010-112-089		CAP,E 100-16
C812	87-010-260-089		CAP,E 47-25 SME
C814	87-016-472-089		CAP,E 22-16,SME (K)
C815	87-010-263-089		CAP, E 100-10 SME 5X11
C816	87-016-081-089		C-CAP,S 0.1-16 RK
C817	87-010-378-089		CAP,E 10-16
C818	87-010-378-089		CAP,E 10-16
C819	87-010-378-089		CAP,E 10-16
C820	87-010-378-089		CAP,E 10-16
C821	87-010-378-089		CAP,E 10-16
C822	87-010-101-089		CAP,E 220-16 SME
C823	87-012-140-089		C-CAP,S 470P-50 CH
C824	87-010-187-089		C-CAP,S 5600P-50 B
C825	87-010-186-089		C-CAP,S 4700P-50 B
C827	87-010-194-089		C-CAP,0.047-25 FK
C828	87-016-465-089		C-CAP,0.68-16 B
C829	87-012-393-089		C-CAP,S 0.22-16,R,K
C830	87-012-393-089		C-CAP,S 0.22-16,R,K
C831	87-010-404-089		CAP,E 4.7-50 SME
C832	87-010-404-089		CAP,E 4.7-50 SME
C833	87-012-393-089		C-CAP,S 0.22-16,RK
C834	87-012-393-089		C-CAP,S 0.22-16,RK
C835	87-016-081-089		C-CAP,S 0.1-16 RK
C838	87-016-081-089		C-CAP,S 0.1-16 RK
C839	87-016-081-089		C-CAP,S 0.1-16 RK
C842	87-016-081-089		C-CAP,S 0.1-16 RK
C900	87-018-209-089		CAP,TC-U 0.1-50 F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
FB640	87-008-372-019		FILTER,EMI BL01RN1
L650	87-005-481-089		COIL,47UH J FLR50
VR741	85-NFS-603-019		VOL,RTRY 50KBX4(AL)
W280	83-NF5-632-019		CABLE,FFC 6P-1.25

PRO AMP C.B

C901	87-010-177-089		C-CAP,S 820P-50 SL
C902	87-010-177-089		C-CAP,S 820P-50 SL
C903	87-010-402-089		CAP,E 2.2-50 SME
C904	87-010-402-089		CAP,E 2.2-50 SME
C905	87-010-378-089		CAP,E 10-16
C906	87-010-378-089		CAP,E 10-16
C909	87-010-147-089		C-CAP,S 3P-50 CH
C910	87-010-147-089		C-CAP,S 3P-50 CH
C911	87-010-993-089		C-CAP,S 0.056-25 B
C912	87-010-993-089		C-CAP,S 0.056-25 B
C913	87-010-196-089		C-CAP,S 0.1-25 F
C914	87-010-196-089		C-CAP,S 0.1-25 F
C915	87-010-193-089		C-CAP,S 0.033-25 F
C916	87-010-193-089		C-CAP,S 0.033-25 F
C917	87-010-197-089		C-CAP,S 0.01-25 B
C918	87-010-194-089		C-CAP,S 0.047-25 F
C921	87-010-405-089		CAP,E 10-50 SME
C922	87-016-566-099		CAP,E 2200-35V SME
C923	87-016-566-099		CAP,E 2200-35V SME
C924	87-012-368-089		C-CAP,S 0.1-50 F
C925	87-012-368-089		C-CAP,S 0.1-50 F
CON901	87-049-919-019		CONN,3P EH V WHT
J901	87-099-803-019		JACK,PIN 3P OWR
L901	87-003-383-019		COIL,1UH-S
L902	87-003-383-019		COIL,1UH-S
R921	87-022-050-089		RESIS METAL 1W-0.22J
R922	87-022-050-089		RESIS METAL 1W-0.22J

DECK C.B

SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-010		SOL ASSY, 27
SOL2	82-ZM1-618-010		SOL ASSY, 27
SW1	87-036-378-010		SW, PUSH 1-1-1 SH2
SW2	87-036-378-010		SW, PUSH 1-1-1 SH2
SW3	87-036-378-010		SW, PUSH 1-1-1 SH2
SW4	87-036-378-010		SW, PUSH 1-1-1 SH2
SW5	87-036-378-010		SW, PUSH 1-1-1 SH2
SW6	87-036-378-019		SW, PUSH 1-1-1 SH2
SW8	87-036-378-019		SW, PUSH 1-1-1 SH2

HEAD-1 C.B

HEAD-2 C.B

CD MAIN C.B

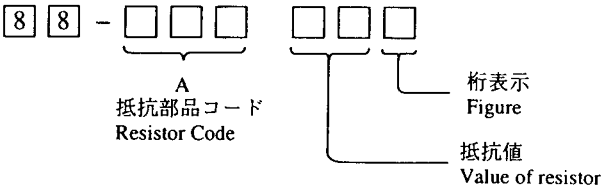
	86-ZG1-605-019		CABLE,FFC 16P
	86-ZG1-608-019		CABLE,FFC 8P
C11	87-010-182-089		C-CAP,S 2200P-50 B
C12	87-016-081-089		C-CAP,S 0.1-16 RK
C13	87-016-081-089		C-CAP,S 0.1-16 RK
C14	87-016-081-089		C-CAP,S 0.1-16 RK
C15	87-010-404-049		CAP,E 4.7-50 SME
C16	87-016-081-089		C-CAP,S 0.1-16 RK
C17	87-010-197-089		C-CAP,S 0.01-25 B
C18	87-010-402-049		CAP,E 2.2-50 SME
C19	87-010-382-049		CAP,E 22-25 SME
C20	87-010-213-089		C-CAP,S 0.015-25 B
C21	87-010-197-089		C-CAP,S 0.01-25 B
C22	87-010-263-049		CAP,E 100-10 SME
C23	87-010-197-089		C-CAP,S 0.01-25 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C24	87-016-369-089		C-CAP,S 0.033-25 B K
C25	87-010-197-089		C-CAP,S 0.01-25 B
C26	87-016-369-089		C-CAP,S 0.033-25 B K
C27	87-010-197-089		C-CAP,S 0.01-25 B
C29	87-010-154-089		C-CAP,S 10P-50 D CH
C30	87-010-263-049		CAP,E 100-10 SME
C31	87-010-178-089		C-CAP,S 1000P-50 B
C32	87-010-198-089		C-CAP,S 0.022-25 B
C33	87-016-081-089		C-CAP,S 0.1-16 RK
C34	87-010-197-089		C-CAP,S 0.01-25 B
C35	87-010-263-049		CAP,E 100-10 SME
C36	87-015-677-049		CAP,E 100-6.3 7L
C37	87-010-197-089		C-CAP,S 0.01-25 B
C38	87-010-260-089		CAP,E 47-25 SME
C39	87-010-196-089		C-CAP,S 0.1-25 F
C91	87-010-263-049		CAP,E 100-10 SME
C101	87-010-596-089		C-CAP,S 0.047-16 RK
C102	87-010-188-089		C-CAP,S 6800P-50 B
C103	87-018-132-089		CAP,TC-U 2200P-16 X
C104	87-012-156-089		C-CAP,S 220P-50 CH
C105	87-010-404-049		CAP,E 4.7-50 SME
C106	87-010-263-049		CAP,E 100-10 SME
C107	87-010-197-089		C-CAP,S 0.01-25 B
C108	87-016-526-089		C-CAP,S 0.47-16 BK
C109	87-010-197-089		C-CAP,S 0.01-25 B
C112	87-010-318-089		C-CAP,S 47P-50 CH
C113	87-010-263-089		CAP,E 100-10 SME 5X11
C114	87-010-197-089		C-CAP,S 0.01-25 B
C115	87-010-318-089		C-CAP,S 47P-50 CH
C116	87-010-318-089		C-CAP,S 47P-50 CH
C117	87-010-197-089		C-CAP,S 0.01-25 B
C122	87-010-186-089		C-CAP,S 4700P-50 B
C123	87-010-382-049		CAP,E 22-25 SME
C201	87-010-318-089		C-CAP,S 47P-50 CH
C202	87-010-318-089		C-CAP,S 47P-50 CH
C203	87-010-321-089		C-CAP,S 82P-50 CH
C204	87-010-321-089		C-CAP,S 82P-50 CH
C205	87-010-321-089		C-CAP,S 82P-50 CH
C206	87-010-321-089		C-CAP,S 82P-50 CH
C207	87-012-153-089		C-CAP,S 120P-50 CH
C208	87-012-153-089		C-CAP,S 120P-50 CH
C209	87-012-153-089		C-CAP,S 120P-50 CH
C210	87-012-153-089		C-CAP,S 120P-50 CH
C211	87-010-403-049		CAP,E 3.3-50 SME
C212	87-010-403-089		CAP,E 3.3-50 SME
C213	87-010-186-089		C-CAP,S 4700P-50 B
C214	87-010-186-089		C-CAP,S 4700P-50 B
C231	87-016-251-049		CAP,E 220-16 SMG
C232	87-010-263-089		CAP,E 100-10 SME 5X11
C301	87-010-196-089		C-CAP,S 0.1-25 F
C302	87-010-260-089		CAP,E 47-25 SME
C401	87-010-403-089		CAP,E 3.3-50 SME
C402	87-010-403-049		CAP,E 3.3-50 SME
C501	87-016-459-049		CAP,E 470-10 SMG
C502	87-010-197-089		C-CAP,S 0.01-25 B
C503	87-010-263-049		CAP,E 100-10 SME
C504	87-010-196-089		C-CAP,S 0.1-25 F
C505	87-010-196-089		C-CAP,S 0.1-25 F
C506	87-010-196-089		C-CAP,S 0.1-25 F
C507	87-010-196-089		C-CAP,S 0.1-25 F
C508	87-016-459-049		CAP,E 470-10 SMG
C509	87-010-196-089		C-CAP,S 0.1-25 F
C510	87-010-196-089		C-CAP,S 0.1-25 F
C601	87-010-196-089		C-CAP,S 0.1-25 F
C602	87-016-251-049		CAP,E 220-16 SMG
C603	87-010-196-089		C-CAP,S 0.1-25 F
C701	87-010-322-089		C-CAP,S 100P-50 CH
C702	87-010-318-089		C-CAP,S 47P-50 CH
C703	87-010-318-089		C-CAP,S 47P-50 CH
C705	87-010-178-089		C-CAP,S 1000P-50 B

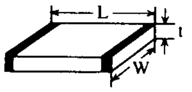
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C901	87-010-260-049		CAP,E 47-25 SME
C902	87-010-196-089		C-CAP,S 0.1-25 F
L11	87-003-102-089		COIL,10UH K LAL02
LED901	87-A40-123-019		LED,SLZ-8128A-01-B
M601	87-045-305-019		MOTOR,RF-500TB
R36	87-022-365-089		C-RES,S 100K-1/10W F
R37	87-022-363-089		C-RES,S 68K-1/10W F
R38	87-022-363-089		C-RES,S 68K-1/10W F
R39	87-022-363-089		C-RES,S 68K-1/10W F
R40	87-022-363-089		C-RES,S 68K-1/10W F
R41	87-022-365-089		C-RES,S 100K-1/10W F
SFR11	87-024-175-089		SFR,47K DIA6V
SFR12	87-024-176-089		SFR,100K DIA6V
SFR13	87-024-176-089		SFR,100K DIA6V
SW601	87-036-109-019		SW,PUSH SPPB 61
SW602	87-036-109-019		SW,PUSH SPPB 61
SW603	87-036-109-019		SW,PUSH SPPB 61
X101	87-030-402-089		VIB,XTAL 16.9344MHZ
LED C.B			
LED701	87-017-733-080		LED,SEL1250SM
LED702	87-017-350-080		LED,SEL1550CM
LED703	87-017-733-080		LED,SEL1250SM
T-T C.B			
C411	87-018-214-089		CAP,TC U 0.1-50
LED411	87-070-288-019		LED,GL380
M401	87-A90-036-019		MOT ASSY,RF-300CA-11
PS401	87-A90-156-019		SNSR,SG-240
Q411	87-A30-031-019		P-TR,PT380F
SW401	87-036-109-019		SW,PUSH SPPB61
CD MOTOR C.B			
SW1	87-036-340-019		SW,LEAF LSA-1121
M20	87-045-358-019		MOT,RF-310TA 43
M21	87-045-356-019		MOT,RF-310TA 30

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

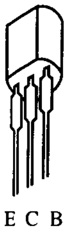
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding


8 8 - □□□ □□□
A
抵抗部品コード
Resistor Code
桁表示
Figure
抵抗値
Value of resistor

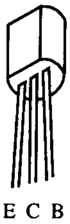
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード：A Resistor Code: A
				外形／Form	L	W	t	
1／16W	1608	±5%	CJ		1.6	0.8	0.45	108
1／10W	2125	±5%	CJ		2	1.25	0.45	118
1／8W	3216	±5%	CJ		3.2	1.6	0.55	128

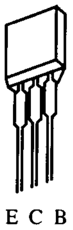
TRANSISTOR ILLUSTRATION



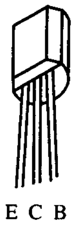
2SD2172
2SA1296
2SC3266
KTA1266
KTC3198



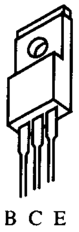
2SA952
2SD655
CSD655
2SC2001
2SA1015
2SA970



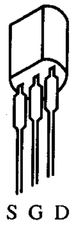
2SA933
DTA114



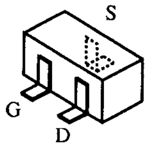
2SA1318
2SC3331



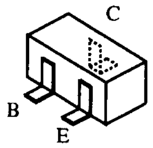
2SB1370



2SK246

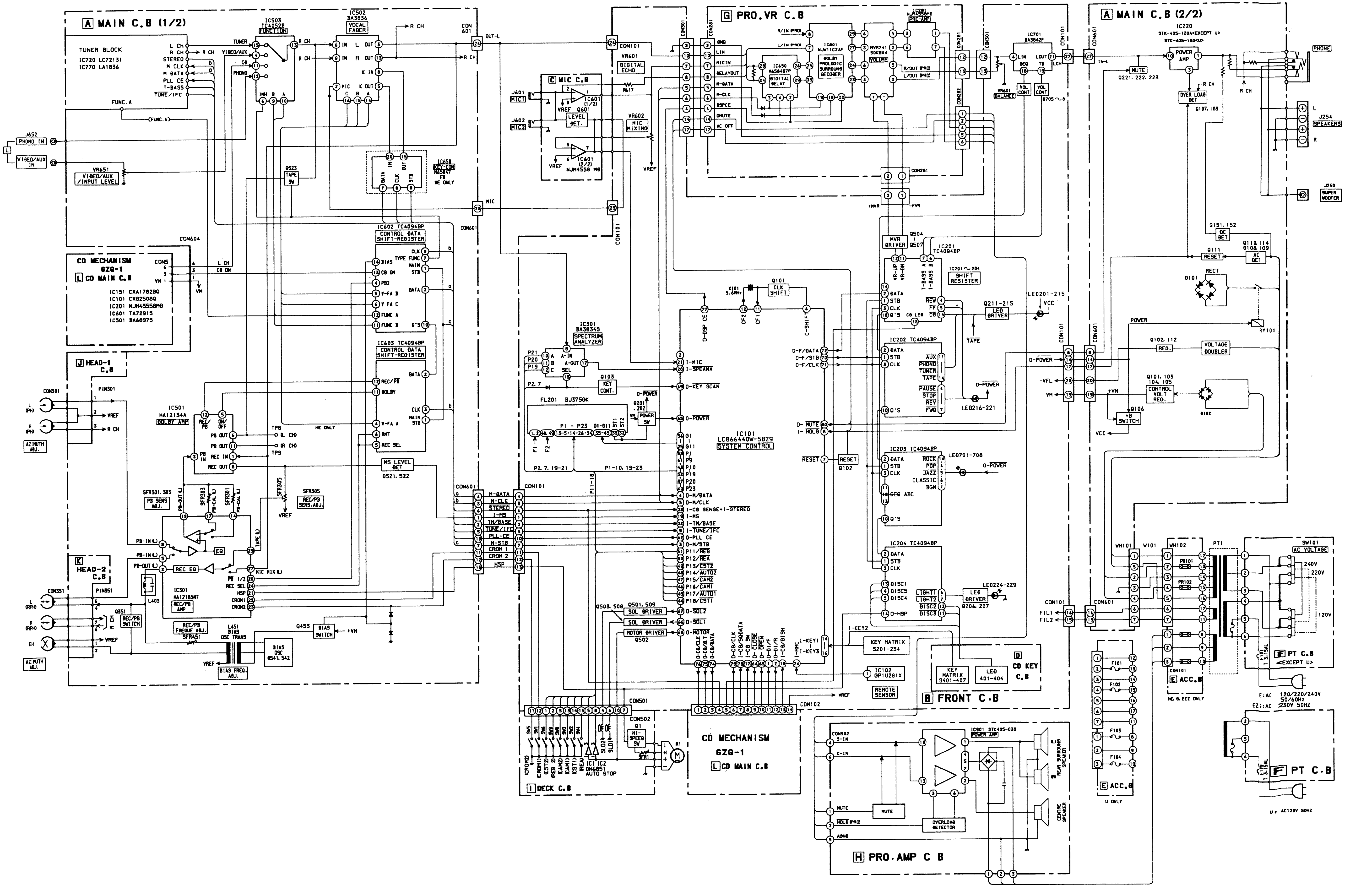


2SK543

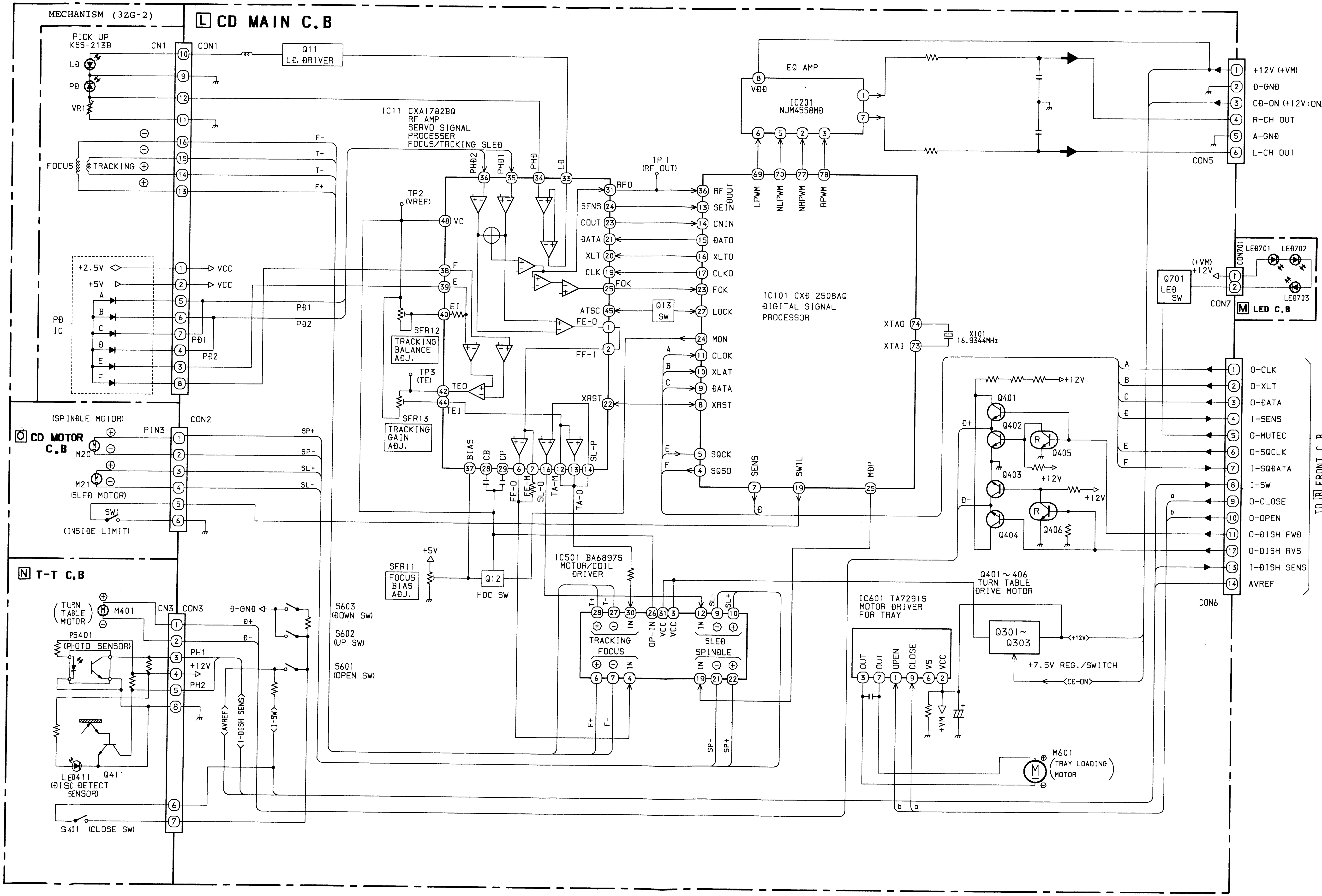


RN1404
2SC2714
2SC3722
2SC2412
2SC3326
2SA1162
2SC2712
2SD2114
DTA114
DTA144
DTA143
DTA114
DTC143
DTC123
DTC114
DTC144
DTC144

BLOCK DIAGRAM – 1 (MAIN / FRONT)

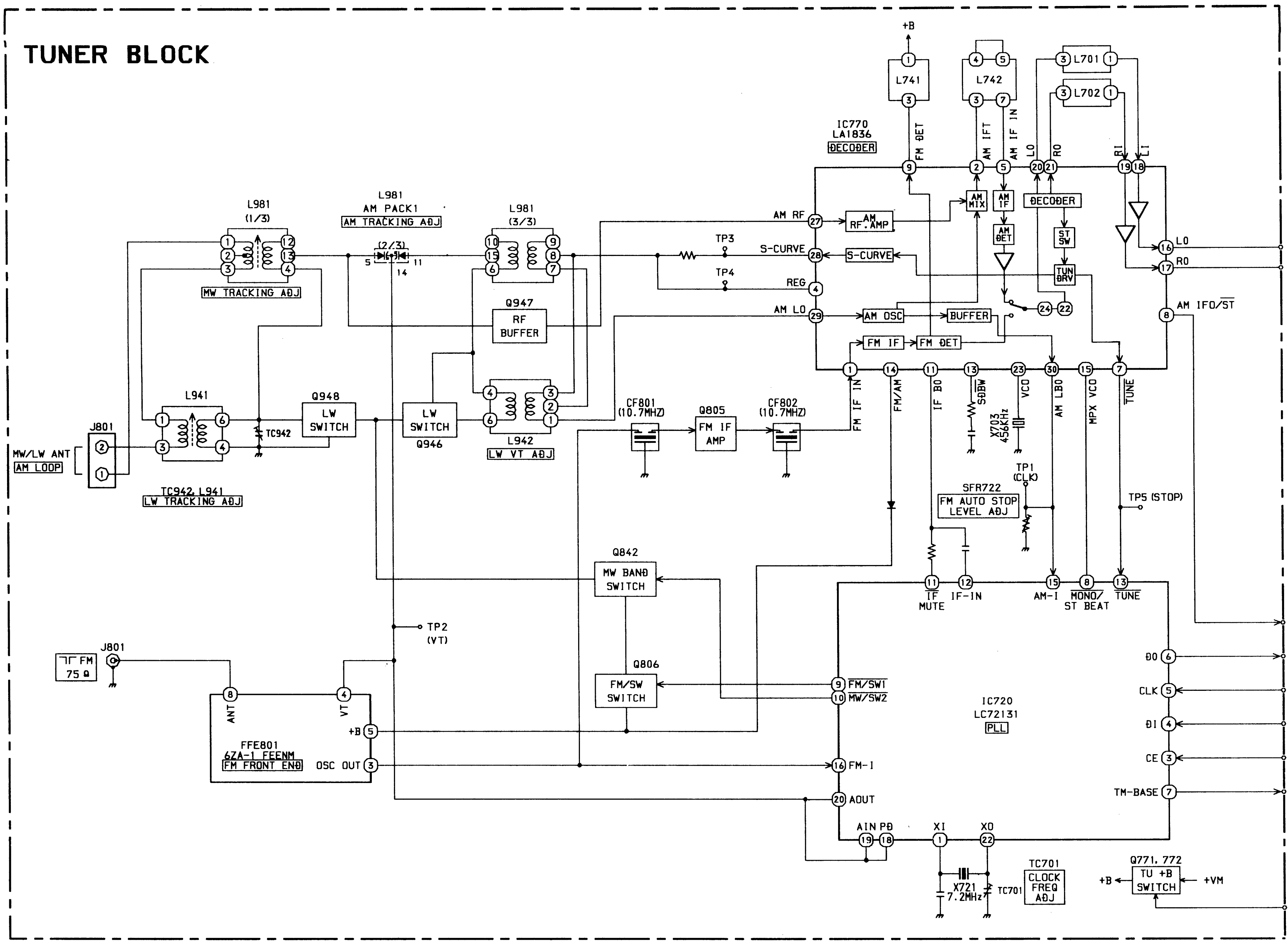

A MAIN C.B (1/2)
TUNER BLOCK
IC720 LC72131
IC770 LA1836
IC503 TC4052B FUNCTION
IC502 BA3836 VOCAL FADER
CON601
C MIC C.B
IC601 NJM4558 MD
VR601 DIGITAL ECHO
VR602 MIC MIXING
J601 MIC1
J602 MIC2
J652 PHONO IN
VIDEO/AUX IN
VR651 VIDEO/AUX /INPUT LEVEL
Q523 TAPE SW
IC650 KEY-CON M65847 FP
IC602 TC4094BP CONTROL DATA SHIFT-REGISTER
IC603 TC4094BP CONTROL DATA SHIFT-REGISTER
CD MECHANISM GZG-1
L CD MAIN C.B
IC151 CXA1782BQ
IC101 CXD2508Q
IC201 NJM4558MD
IC601 TA7291S
IC501 BA6897S
J HEAD-1 C.B
K HEAD-2 C.B
IC501 HA12134A DOLBY AMP
IC301 HA12185NT
MS LEVEL DET Q521, 522
REC EQ
REC/PB FREQUE ADJ.
BIAS OSC Q541, 542
L451 BIAS OSC TRANS
BIAS FREQ. ADJ.
Q453 BIAS SWITCH
Q351 REC/PB SWITCH
AZIMUTH ADJ.
G PRO.VR C.B
IC281 M62554MD PRE-AMP
IC801 NJM1102AF DOLBY PROLOGIC SURROUND DECODER
IC650 M65847P DIGITAL DELAY
MVR741 50KBX4 VOLUME
IC701 BA3842F
VR601 BALANCE
IC301 BA3834S SPECTRUM ANALYZER
FL201 BJ375GK
Q103 KEY CONT.
Q201, 202 POWER SW
X101 5.6MHz
Q101 CLK SHIFT
IC101 LC866440W-5B29 SYSTEM CONTROL
Q102 RESET
Q504 MVR DRIVER Q507
IC201 TC4094BP
IC201~204 SHIFT RESISTER
Q211-215 LED DRIVER
IC202 TC4094BP
IC203 TC4094BP
IC204 TC4094BP
Q206, 207 LED DRIVER
KEY MATRIX S201-234
IC102 GP1U281X REMOTE SENSOR
D CD KEY C.B
KEY MATRIX S401-407
LED 401-404
B FRONT C.B
Q503, 508 SOL DRIVER
Q501, 509 SOL DRIVER
MOTOR DRIVER Q502
I DECK C.B
Q1 HI-SPEED SW
IC1 IC2 AN6851 AUTO STOP
CD MECHANISM GZG-1
L CD MAIN C.B
H PRO.AMP C B
IC801 STK405-030 POWER AMP
MUTE
OVERLOAD DETECTOR
REAR SURROUND SPEAKER
CENTRE SPEAKER
A MAIN C.B (2/2)
IC220 STK-405-120A<EXCEPT U> STK-405-130<U>
POWER AMP
MUTE Q221, 222, 223
OVER LOAD DET Q107, 108
PHONE
J254 SPEAKERS
J250 SUPER WOOFER
Q151, 152 DC DET
Q111 RESET
Q110, 114 D108, 109 AC DET
D101 RECT
RY101
Q102, 112 REG.
VOLTAGE DOUBLER
Q101, 103 104, 105 CONTROL VOLT REG.
Q106 +B SWITCH
D102
E ACC.B
F101 F102 F103 F104
U ONLY
PT1
SW101 AC VOLTAGE
240V 220V 120V
F PT C.B <EXCEPT U>
E:AC 120/220/240V 50/60Hz
EZ:AC 230V 50HZ
F PT C.B
U: AC120V 50HZ

BLOCK DIAGRAM – 2 (CD)

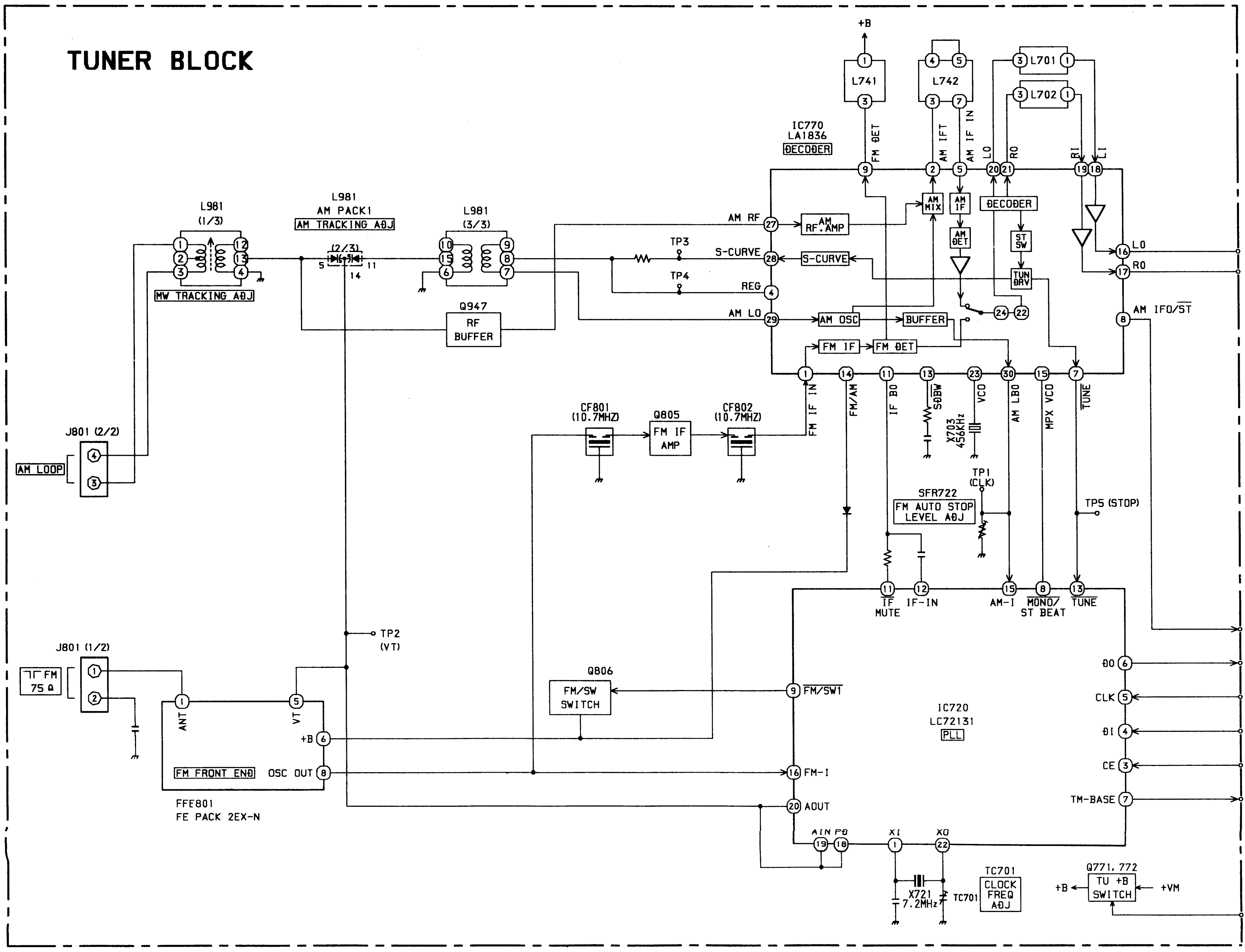


MECHANISM (3ZG-2)
PICK UP KSS-213B
CN1
LD
PD
VR1
FOCUS
TRACKING
+2.5V
+5V
VCC
VCC
PD IC
A
B
C
D
E
F
PD1
PD2
L CD MAIN C.B
CON1
Q11 LD DRIVER
F-
T+
T-
F+
IC11 CXA1782BQ
RF AMP
SERVO SIGNAL
PROCESSER
FOCUS/TRCKING SLED
PHD2
PHD1
PHD
LD
TP1 (RF OUT)
RFO
SENS
COUT
DATA
XLT
CLK
FOK
ATSC
FE-O
FE-I
XRST
TP2 (VREF)
VC
F
E
EI
SFR12
TRACKING BALANCE ADJ.
TP3 (TE)
TEO
TEI
SFR13
TRACKING GAIN ADJ.
BIAS
CB
CP
FE-O
FE-M
SL-O
TA-M
TA-O
SL-P
Q13 SW
DOUT
RF
SEIN
CNIN
DATO
XLTO
CLKO
FOK
LOCK
MON
CLOK
XLAT
DATA
XRST
SQCK
SQSO
SENS
SWIL
MDP
IC101 CXD 2508AQ
DIGITAL SIGNAL PROCESSOR
XTAO
XTAI
X101 16.9344MHz
LPWM
NLPWM
NRPWM
RPWM
EQ AMP
VDD
IC201 NJM4558MD
CON5
+12V (+VM)
D-GND
CD-ON (+12V:ON)
R-CH OUT
A-GND
L-CH OUT
TO A MAIN C.B CON604
CON701
LED701
LED702
LED703
(+VM) +12V
Q701 LED SW
CON7
M LED C.B
(SPINDLE MOTOR)
O CD MOTOR C.B
PIN3
M20
M21
(SLED MOTOR)
SW1
(INSIDE LIMIT)
CON2
SP+
SP-
SL+
SL-
+5V
SFR11
FOCUS BIAS ADJ.
Q12
FOC SW
IC501 BA6897S
MOTOR/COIL DRIVER
T+
T-
IN
OP-IN
VCC
VCC
SL-
SL+
TRACKING
FOCUS
SLED
SPINDLE
F+
F-
SP-
SP+
N T-T C.B
TURN TABLE MOTOR
M401
PS401
(PHOTO SENSOR)
CN3
CON3
PH1
+12V
PH2
D-GND
D+
D-
LED411
Q411
(DISC DETECT SENSOR)
S401 (CLOSE SW)
S603 (DOWN SW)
S602 (UP SW)
S601 (OPEN SW)
<AVREF>
<I-DISH SENS>
<I-SW>
+12V
Q401
Q402
Q403
Q404
Q405
Q406
R
Q401∼406
TURN TABLE DRIVE MOTOR
IC601 TA7291S
MOTOR DRIVER FOR TRAY
OUT
OUT
OPEN
CLOSE
VS
VCC
+VM
Q301∼Q303
<+12V>
+7.5V REG./SWITCH
<CD-ON>
M601
TRAY LOADING MOTOR
a
b
CON6
O-CLK
O-XLT
O-DATA
I-SENS
O-MUTEC
O-SQCLK
I-SQDATA
I-SW
O-CLOSE
O-OPEN
O-DISH FWD
O-DISH RVS
I-DISH SENS
AVREF
TO B FRONT C.B CN503

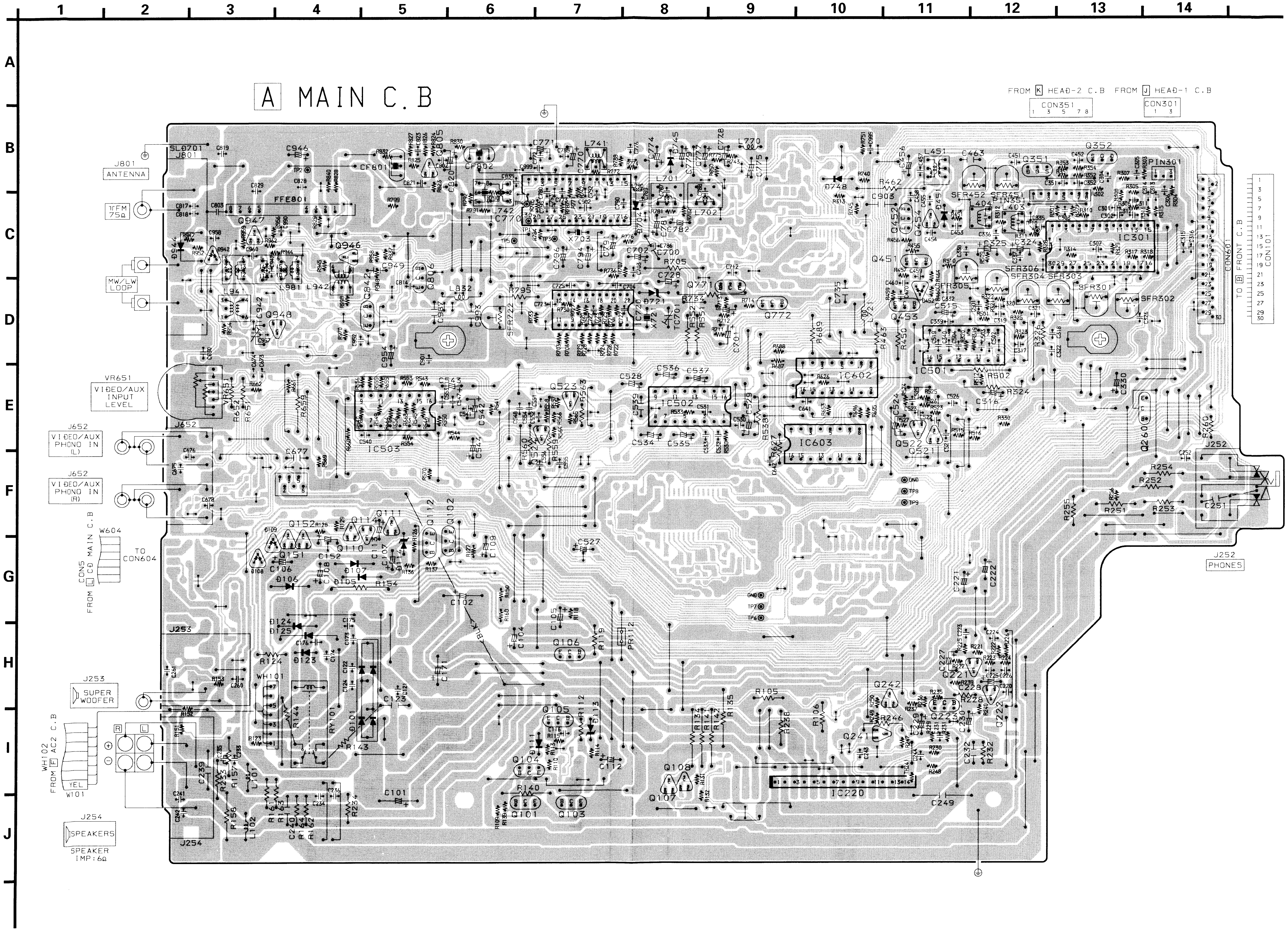
BLOCK DIAGRAM – 3 (TUNER : G, EZ)


TUNER BLOCK
+B
L741
L742
L701
L702
IC770
LA1836
DECODER
FM DET
AM IFT
AM IF IN
LO
RO
RI
LI
L981
(1/3)
MW TRACKING ADJ
L981
AM PACK1
AM TRACKING ADJ
(2/3)
L981
(3/3)
AM RF
RF AMP
AM MIX
AM IF
DECODER
AM DET
ST SW
TUN DRV
TP3
S-CURVE
S-CURVE
TP4
REG
AM LO
AM OSC
BUFFER
FM IF
FM DET
Q947
RF BUFFER
LO
RO
FUNC TUN
FUNC TUN
AM IFO/ST
L941
Q948
LW SWITCH
LW SWITCH
Q946
L942
LW VT ADJ
CF801
(10.7MHZ)
Q805
FM IF AMP
CF802
(10.7MHZ)
FM IF IN
FM/AM
IF DO
SDBW
VCO
AM LDO
MPX VCO
TUNE
X703
456kHz
J801
MW/LW ANT
AM LOOP
TC942
TC942, L941
LW TRACKING ADJ
TP1
(CLK)
SFR722
FM AUTO STOP
LEVEL ADJ
TP5 (STOP)
Q842
MW BAND SWITCH
IF MUTE
IF-IN
AM-I
MONO/ST BEAT
TUNE
TP2
(VT)
J801
FM 75 Ω
Q806
FM/SW SWITCH
FM/SW1
MW/SW2
IC720
LC72131
PLL
ANT
VT
+B
OSC OUT
FFE801
6ZA-1 FEENM
FM FRONT END
FM-I
AOUT
AIN PD
XI
XO
DO
CLK
DI
CE
TM-BASE
STEREO
TUNE/IFC
M-CLK
M-DATA
PLL-CE
TM/BASE
TO FRONT BLOCK
X721
7.2MHz
TC701
TC701
CLOCK FREQ ADJ
Q771, 772
TU +B SWITCH
+B
+VM
FUNC A

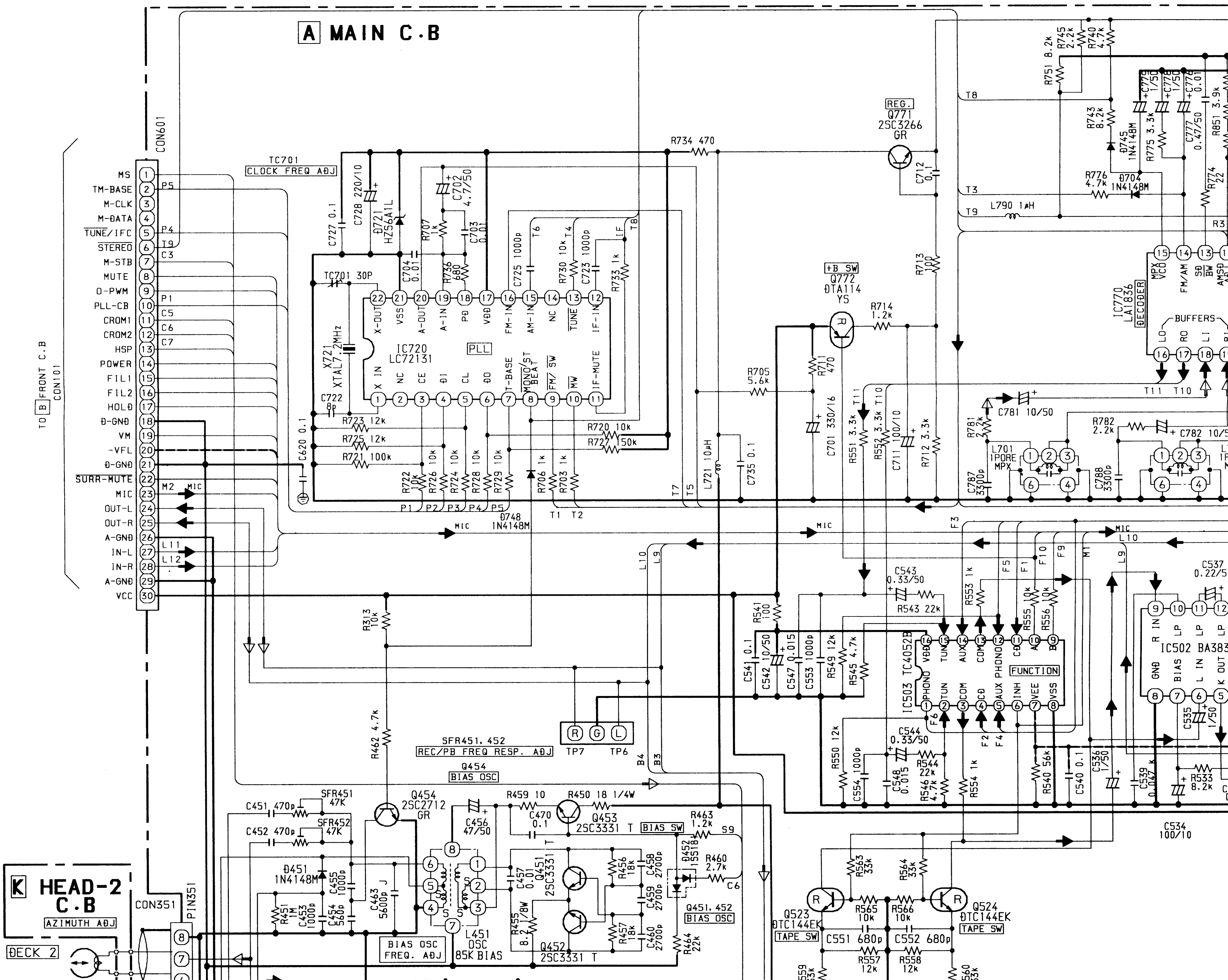
BLOCK DIAGRAM – 4 (TUNER : HE, U)

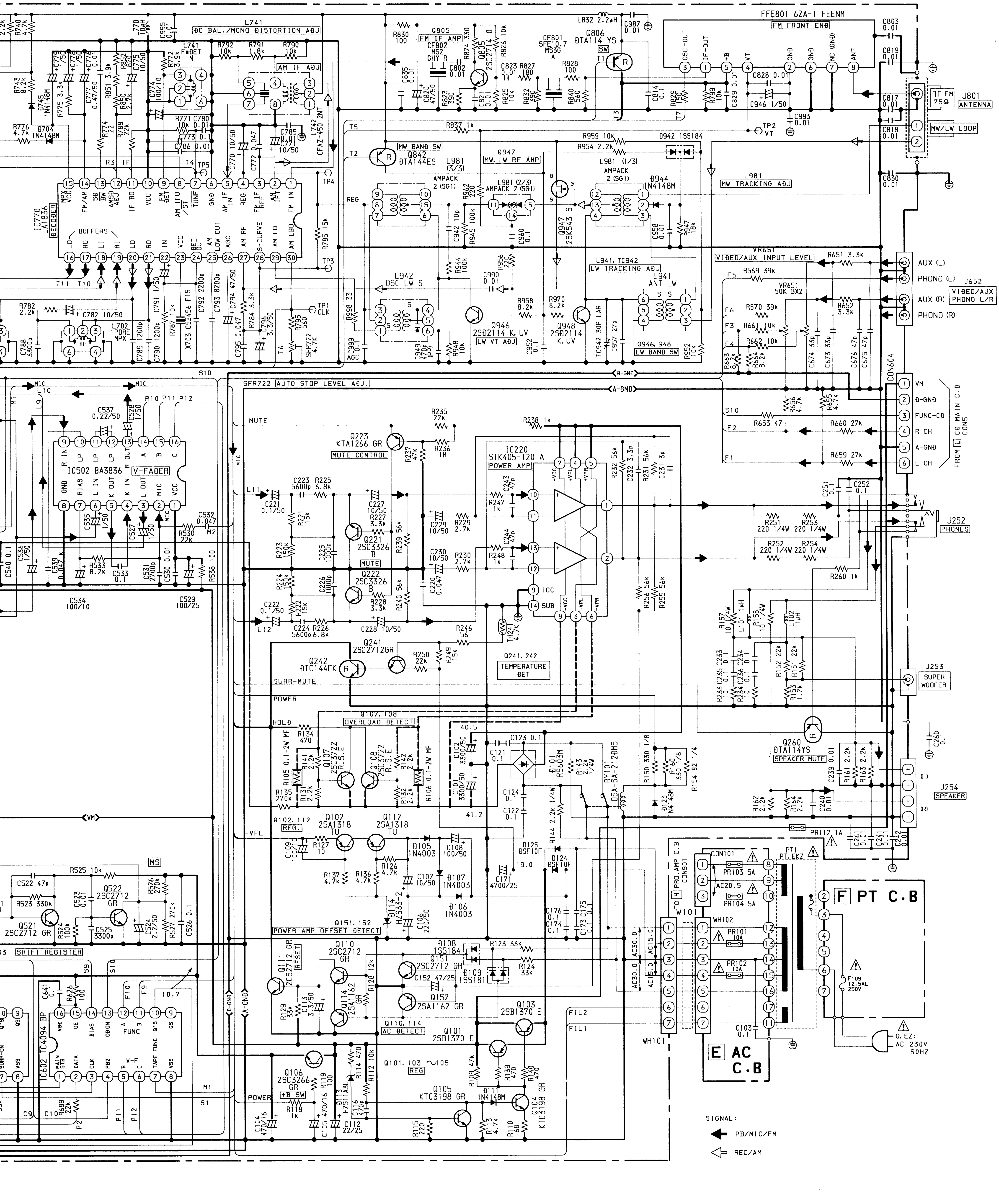

TUNER BLOCK
+B
L741
L742
L701
L702
IC770
LA1836
DECODER
FM DET
AM IFT
AM IF IN
LO
RO
RI
LI
L981
(1/3)
MW TRACKING ADJ
L981
AM PACK1
AM TRACKING ADJ
(2/3)
L981
(3/3)
AM RF
RF AMP
AM MIX
AM IF
DECODER
AM DET
ST SW
TUN DRV
TP3
S-CURVE
S-CURVE
TP4
REG
AM LO
AM OSC
BUFFER
FM IF
FM DET
Q947
RF BUFFER
LO
RO
FUNC TUN
FUNC TUN
AM IFO/ST
J801 (2/2)
AM LOOP
CF801
(10.7MHZ)
Q805
FM IF AMP
CF802
(10.7MHZ)
FM IF IN
FM/AM
IF DO
SDBW
VCO
AM LDO
MPX VCO
TUNE
X703
456kHz
TP1
(CLK)
SFR722
FM AUTO STOP
LEVEL ADJ
TP5 (STOP)
IF MUTE
IF-IN
AM-I
MONO/ST BEAT
TUNE
TP2
(VT)
J801 (1/2)
FM 75 Ω
Q806
FM/SW SWITCH
FM/SW1
IC720
LC72131
PLL
ANT
VT
+B
FM FRONT END
OSC OUT
FFE801
FE PACK 2EX-N
FM-I
AOUT
AIN PD
XI
XO
DO
CLK
DI
CE
TM-BASE
STEREO
TUNE/IFC
M-CLK
M-DATA
PLL-CE
TM/BASE
TO FRONT BLOCK
X721
7.2MHz
TC701
TC701
CLOCK FREQ ADJ
Q771, 772
TU +B SWITCH
+B
+VM
FUNC A

WIRING – 1 (MAIN : G, EZ)


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
A MAIN C.B
FROM K HEAD-2 C.B
CON351
1 3 5 7 8
FROM J HEAD-1 C.B
CON301
1 3
J801
ANTENNA
FM 75Ω
MW/LW LOOP
VR651
VIDEO/AUX INPUT LEVEL
J652
VIDEO/AUX PHONO IN (L)
J652
VIDEO/AUX PHONO IN (R)
W604
TO CON604
CON5 FROM L CD MAIN C.B
J253
SUPER WOOFER
WH102 FROM F AC2 C.B
YEL
W101
R
L
J254
SPEAKERS
SPEAKER IMP:6Ω
J252
PHONES
CON601
TO B FRONT C.B CON101
IC301
IC501
IC502
IC503
IC602
IC603
IC220
IC720
RY101
CF801
CF802
FFE801
PIN301
GND
TP6
TP7
TP8
TP9
BLK

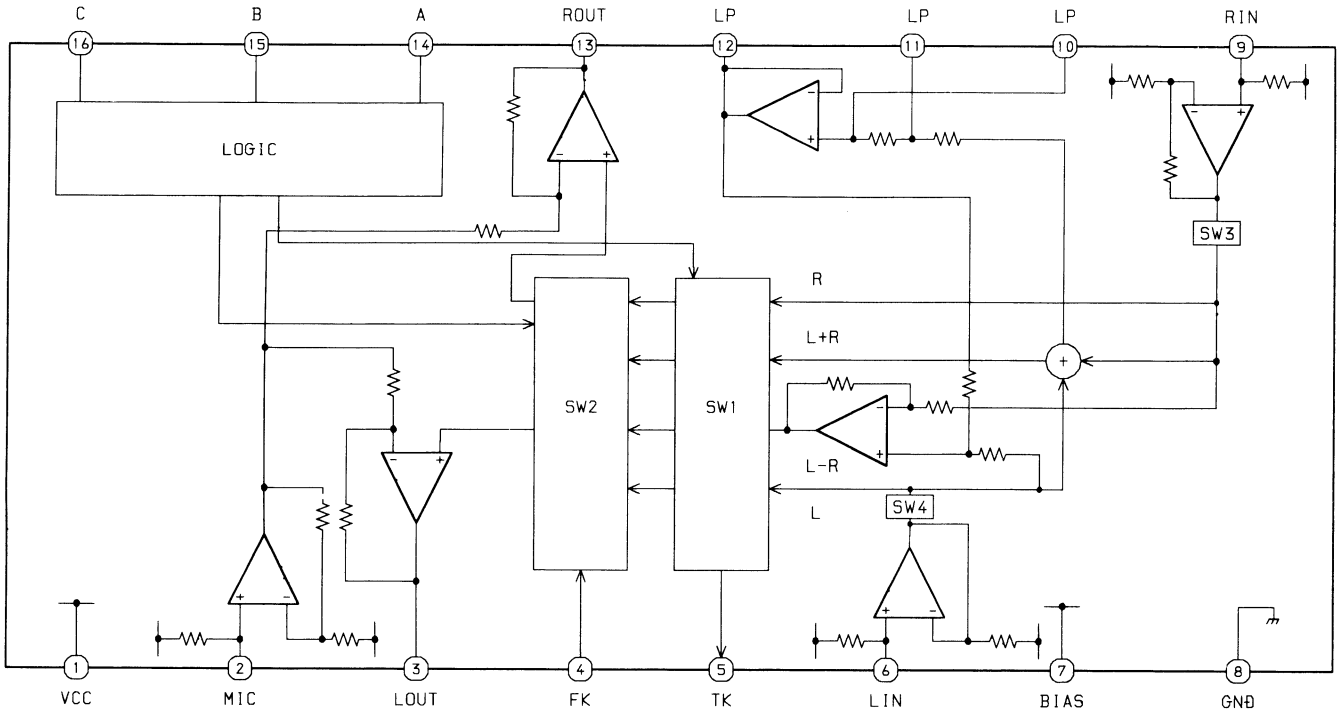
SCHEMATIC DIAGRAM – 1 (MAIN : EZ, G)


A MAIN C·B
CON601
TO B FRONT C.B CON101
MS
TM-BASE
M-CLK
M-DATA
TUNE/IFC
STEREO
M-STB
MUTE
D-PWM
PLL-CB
CROM1
CROM2
HSP
POWER
FIL1
FIL2
HOLD
D-GND
VM
-VFL
D-GND
SURR-MUTE
MIC
OUT-L
OUT-R
A-GND
IN-L
IN-R
A-GND
VCC
TC701 CLOCK FREQ ADJ
IC720 LC72131
PLL
X721 XTAL 7.2MHz
REG. Q771 2SC3266 GR
+B SW Q772 DTA114 YS
IC770 LA1836 DECODER
BUFFERS
L701 1PORE MPX
IC503 TC4052B
FUNCTION
IC502 BA383
SFR451, 452 REC/PB FREQ RESP. ADJ
TP7 TP6
Q454 BIAS OSC
Q454 2SC2712 GR
Q453 2SC3331 T BIAS SW
Q451, 452 BIAS OSC
Q451 2SC3331
Q452 2SC3331 T
L451 OSC 85K BIAS
BIAS OSC FREQ. ADJ
K HEAD-2 C·B AZIMUTH ADJ
CON351
PIN351
DECK 2
R CH
L CH
RPH EH
CON301
PIN301
DECK 1
J HEAD-1 C·B AZIMUTH ADJ
Q523 DTC144EK TAPE SW
Q524 DTC144EK TAPE SW
L404 TRAP BIAS
L403 TRAP BIAS
SFR301～304 PB SENS. ADJ
Q351 2SK246 BL
Q352 2SK246 BL
Q351, 352 REC SW
IC301 HA12185NT DECK IC
Q521, 522 MS LEVEL DET.
Q521 2SC2712 GR
IC602, 603 SHIFT REGISTER
IC603 TC4094 BP
IC602 TC4094 BP
SFR305, 306 REC/PB SENS. ADJ
IC501 HA12134A
IC501 DOLBY AMP
TP8
TP9
D-GND
A-GND

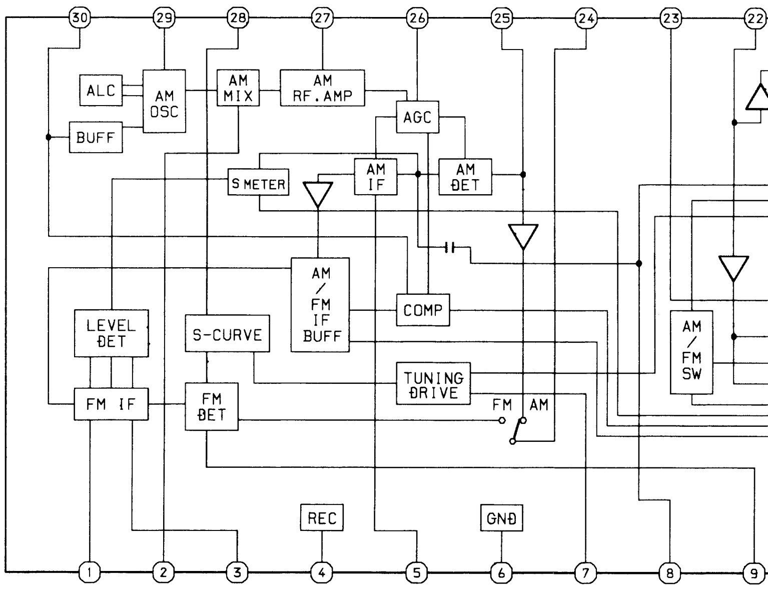

L741 DC BAL./MONO DISTORTION ADJ
AM IF ADJ
IC770 LA1836 DECODER
BUFFERS
FM IF AMP
CF802 MS2 GHY-R
Q805 2SC2714 O
CF801 SFE10.7 MS3G A
Q806 DTA114 YS
SW
FFE801 6ZA-1 FEENM
FM FRONT END
OSC-OUT
IF-OUT
+B
VT
GND
NC (GND)
ANT
J801 ANTENNA
1T FM 75Ω
MW/LW LOOP
MW BAND SW
Q842 DTA144ES
Q947 MW. LW RF AMP
L981 (3/3)
L981 (2/3) AMPACK 2 (SG1)
L981 (1/3) AMPACK 2 (SG1)
D942 1SS184
D944 1N4148M
L981 MW TRACKING ADJ
Q947 2SK543 S
L942 OSC LW S
Q946 2SD2114 K, UV
LW VT ADJ
Q948 2SD2114 K, UV
L941, TC942 LW TRACKING ADJ
L941 ANT LW
Q946, 948 LW BAND SW
VR651 VIDEO/AUX INPUT LEVEL
VR651 50K BX2
AUX (L)
PHONO (L)
AUX (R)
PHONO (R)
J652 VIDEO/AUX PHONO L/R
CON604
VM
D-GND
FUNC-CD
R CH
A-GND
L CH
FROM L CD MAIN C.B CON5
SFR722 AUTO STOP LEVEL ADJ.
IC502 BA3836 V-FADER
MUTE
Q223 KTA1266 GR
MUTE CONTROL
IC220 STK405-120 A
POWER AMP
Q221 2SC3326 B
Q222 2SC3326 B
Q241 2SC2712GR
Q242 DTC144EK
SURR-MUTE
Q241. 242 TEMPERATURE DET
J252 PHONES
J253 SUPER WOOFER
Q260 DTA114YS
SPEAKER MUTE
J254 SPEAKER
POWER
HOLD
Q107. 108 OVERLOAD DETECT
Q107 2SC3722 R.S.E
Q108 2SC3722 R.S.E
D101 RS603M
RY101 DSA-SA-212DM5
Q102. 112 REG.
Q102 2SA1318 TU
Q112 2SA1318 TU
Q151. 152 POWER AMP OFFSET DETECT
Q111 2SC2712 GR RESET
Q110 2SC2712 GR
Q151 2SC2712 GR
Q152 2SA1162 GR
Q114 2SA1162 GR
Q110. 114 AC DETECT
Q103 2SB1370 E
Q101 2SB1370 E
Q101. 103 ~105 REG
Q106 2SC3266 GR
+B SW
Q105 KTC3198 GR
Q104 KTC3198 GR
MS
Q521 2SC2712 GR
Q522 2SC2712 GR
SHIFT REGISTER
IC602 TC4094 BP
V-F FUNC
TO H PRO.AMP C.B CON901
W101
WH101
CON101
PR103 5A
AC20.5
PR104 5A
WH102
PR101 10A
PR102 10A
PT1 PT-EKZ
E AC C.B
F PT C.B
F109 T2.5AL 250V
G. EZ: AC 230V 50HZ
SIGNAL:
PB/MIC/FM
REC/AM

IC BLOCK DIAGRAM – 1

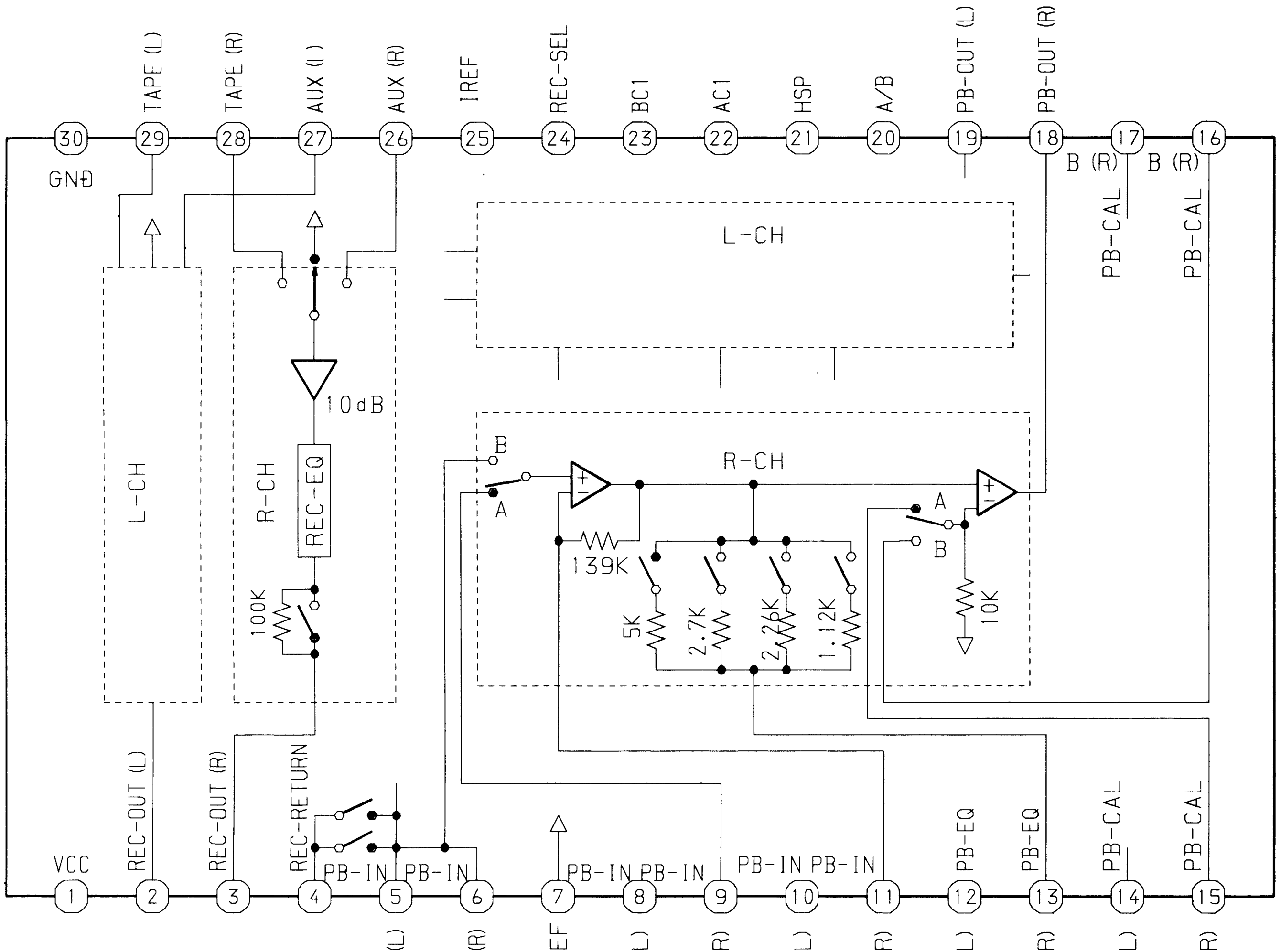
IC, BA3836


C
B
A
ROUT
LP
LP
LP
RIN
LOGIC
SW3
R
L+R
SW2
SW1
L-R
L
SW4
VCC
MIC
LOUT
FK
TK
LIN
BIAS
GND

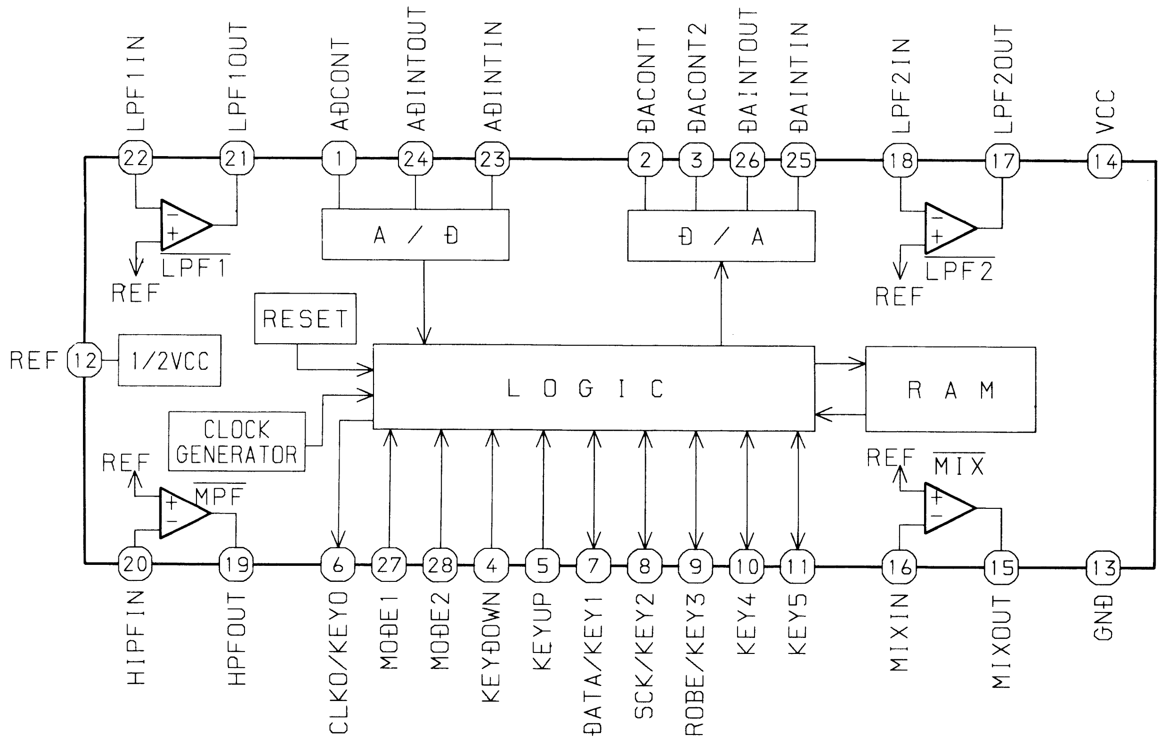
IC, LA1836


ALC
AM OSC
BUFF
AM MIX
AM RF.AMP
AGC
S METER
AM IF
AM DET
AM / FM IF BUFF
COMP
LEVEL DET
S-CURVE
TUNING DRIVE
FM IF
FM DET
FM
AM
AM / FM SW
REC
GND

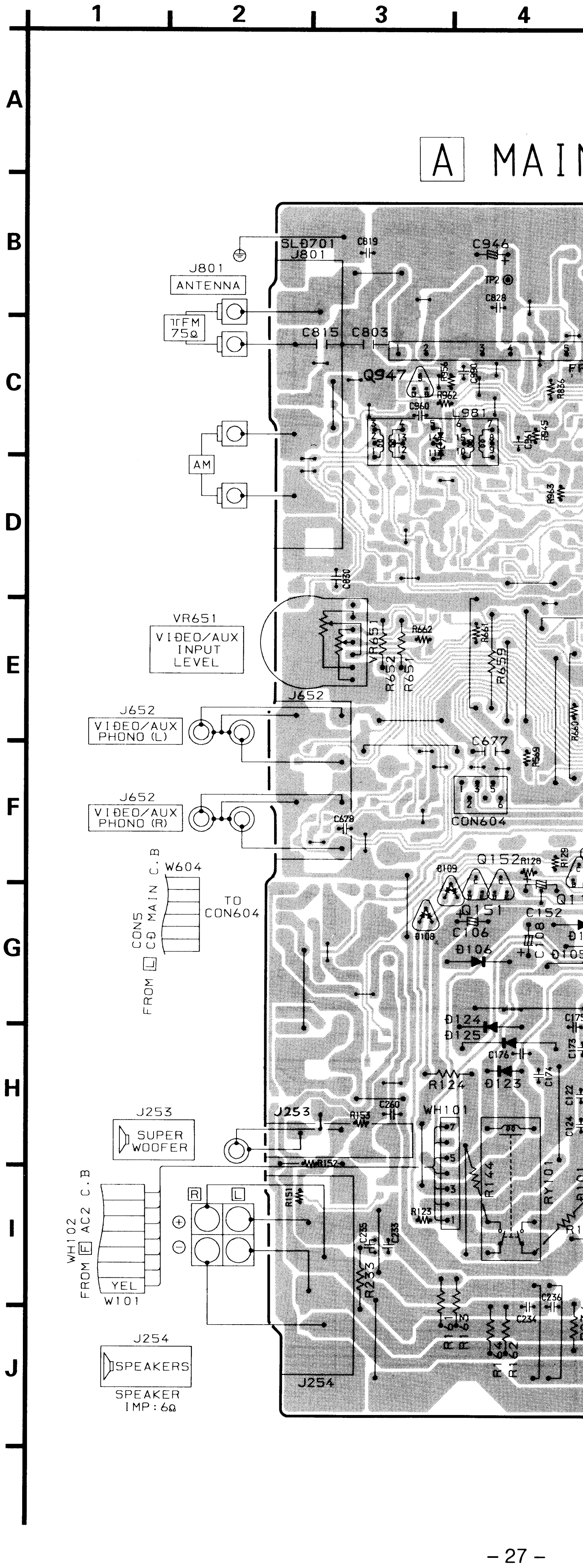
IC, HA12185NT

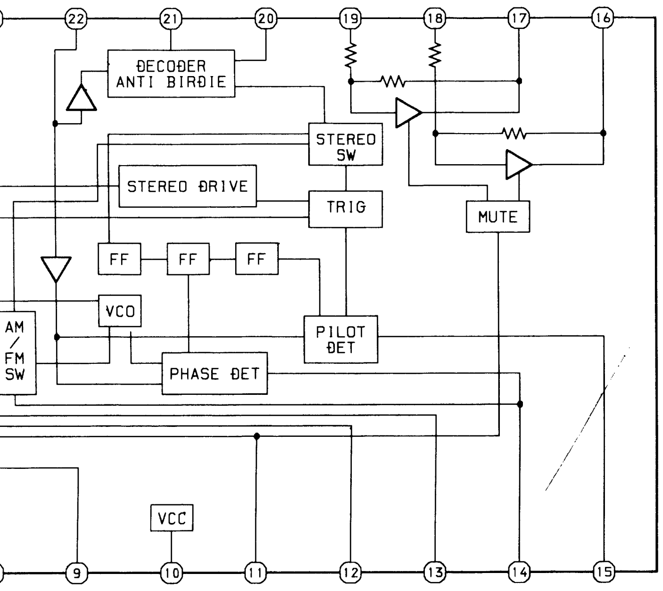

TAPE (L)
TAPE (R)
AUX (L)
AUX (R)
IREF
REC-SEL
BC1
AC1
HSP
A/B
PB-OUT (L)
PB-OUT (R)
GND
B (R)
B (R)
PB-CAL
PB-CAL
L-CH
L-CH
10dB
R-CH
REC-EQ
100K
R-CH
B
A
139K
5K
2.7K
2.26K
1.12K
A
B
10K
VCC
REC-OUT (L)
REC-OUT (R)
REC-RETURN
PB-IN
PB-IN
VREF
PB-IN
PB-IN
PB-IN
PB-IN
PB-EQ
PB-EQ
PB-CAL
PB-CAL
B (L)
B (R)
VREF
A (L)
A (R)
(L)
(R)
(L)
(R)
A (L)
A (R)

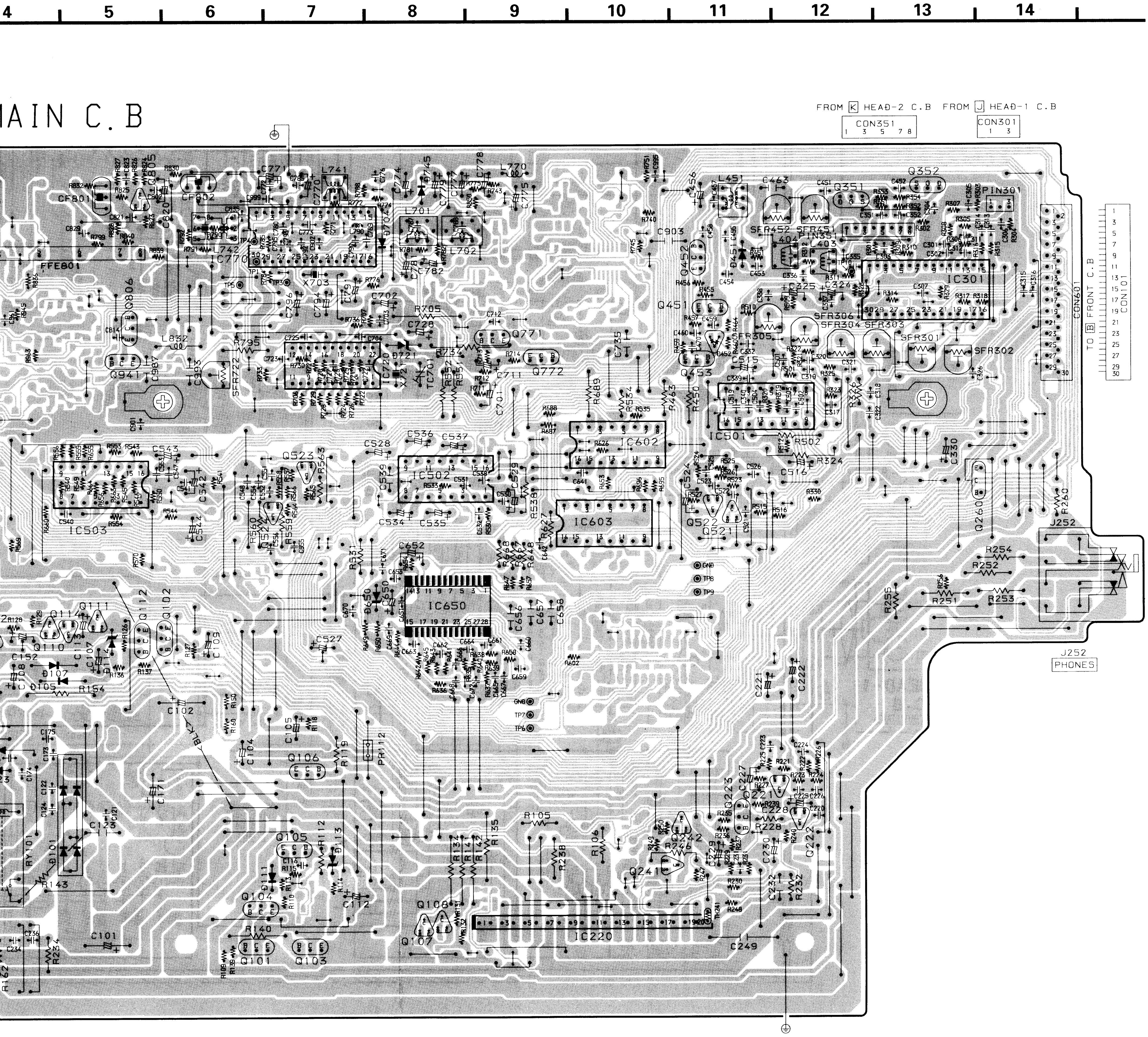
IC, M65847FP


LPF1IN
LPF1OUT
ADCONT
ADINTOUT
ADINTIN
DACONT1
DACONT2
DAINTOUT
DAINTIN
LPF2IN
LPF2OUT
VCC
LPF1
REF
A / D
D / A
LPF2
REF
RESET
REF
1/2VCC
LOGIC
RAM
CLOCK GENERATOR
REF
MPF
REF
MIX
HIPFIN
HPFOUT
CLKO/KEY0
MODE1
MODE2
KEYDOWN
KEYUP
SDATA/KEY1
SCK/KEY2
STROBE/KEY3
KEY4
KEY5
MIXIN
MIXOUT
GND

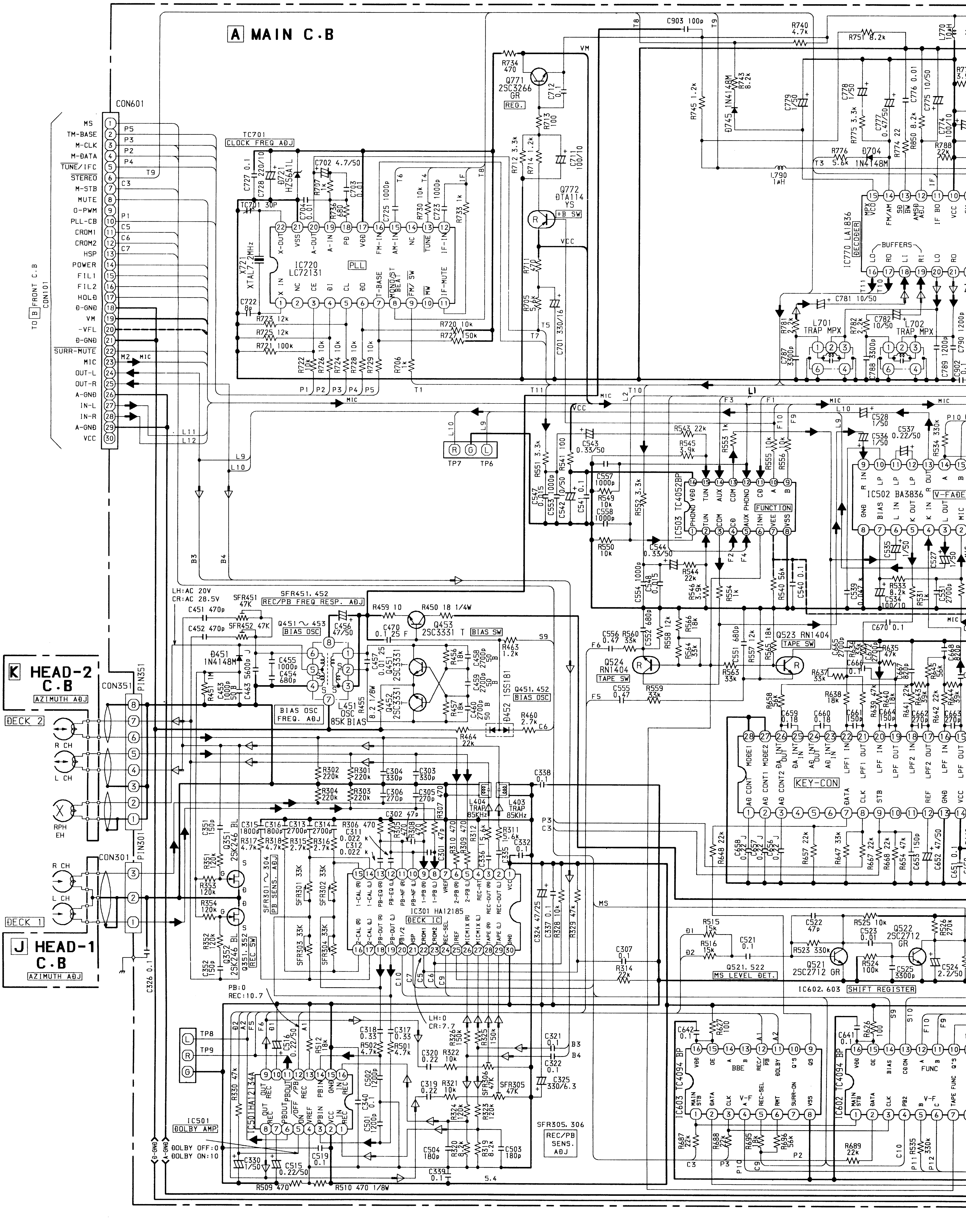
WIRING – 2 (MAIN : HE)


1
2
3
4
A
B
C
D
E
F
G
H
I
J
A MAIN
J801 ANTENNA
FM 75Ω
AM
VR651 VIDEO/AUX INPUT LEVEL
J652 VIDEO/AUX PHONO (L)
J652 VIDEO/AUX PHONO (R)
W604
FROM C CD MAIN C.B CON5
TO CON604
J253 SUPER WOOFER
FROM E AC2 C.B WH102
YEL
W101
R
L
J254 SPEAKERS
SPEAKER IMP : 6Ω
Q947
Q152
CON604
WH101

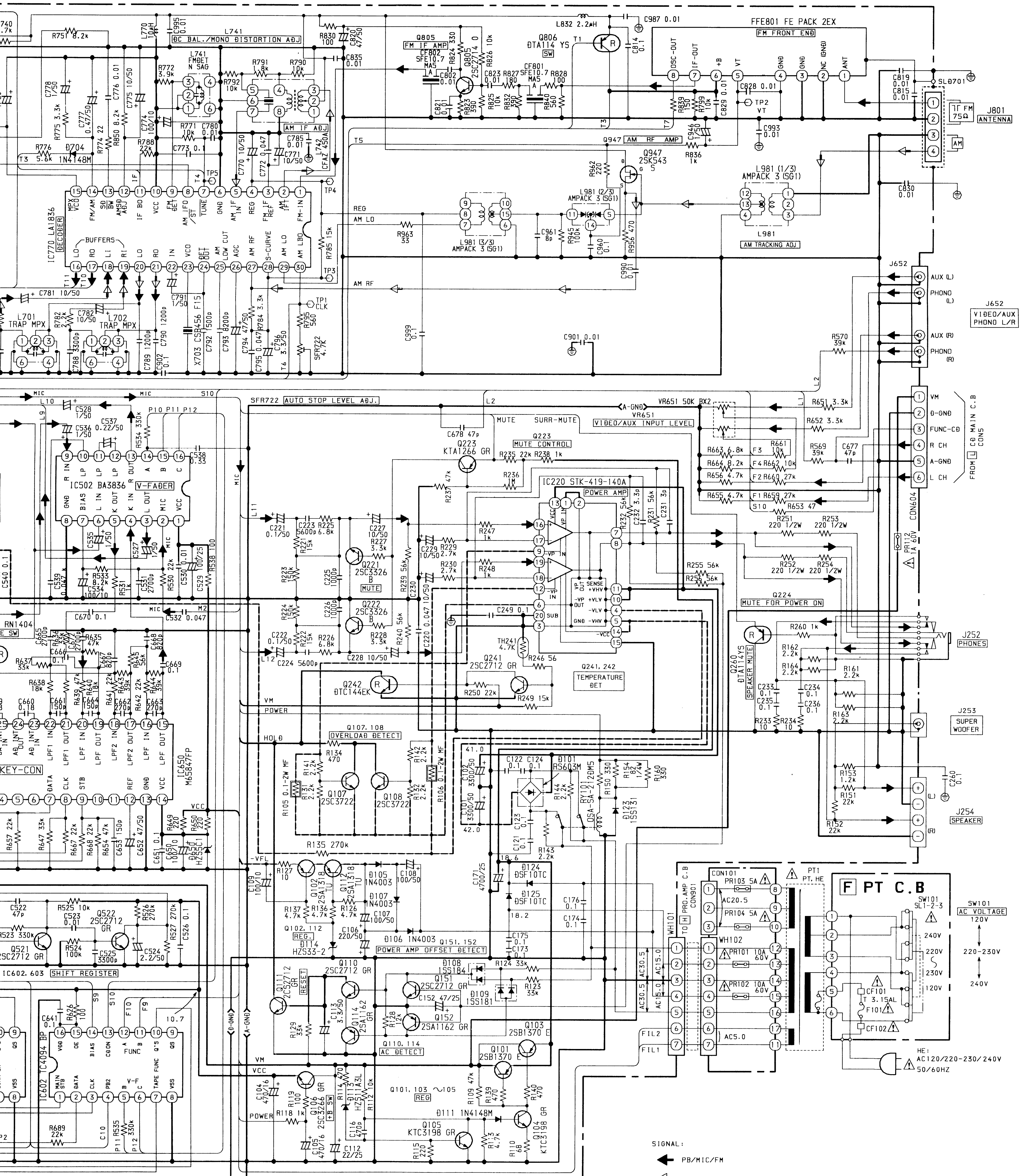

22
21
20
19
18
17
16
DECODER ANTI BIRDIE
STEREO SW
STEREO DRIVE
TRIG
MUTE
FF
FF
FF
VCO
PILOT DET
AM / FM SW
PHASE DET
VCC
9
10
11
12
13
14
15


4
5
6
7
8
9
10
11
12
13
14
AIN C.B
FROM K HEAD-2 C.B
CON351
1 3 5 7 8
FROM J HEAD-1 C.B
CON301
1 3
CON601
TO B FRONT C.B
CON101
IC770
IC720
IC301
IC501
IC502
IC503
IC602
IC603
IC650
IC220
Q351
Q352
Q451
Q452
Q453
Q521
Q522
Q523
Q771
Q772
Q941
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q110
Q111
Q112
Q114
Q221
Q222
Q223
Q241
Q242
Q260
L451
L701
L702
L741
L742
L770
L832
CF801
CF802
FFE801
X703
SFR301
SFR302
SFR303
SFR304
SFR305
SFR306
SFR451
SFR452
SFR722
PIN301
PIN351
RY101
PR112
J252
R254
R252
R251
R253
R255
R260
GND
TP6
TP7
TP8
TP9
J252
PHONES

SCHEMATIC DIAGRAM – 2 (MAIN : HE)

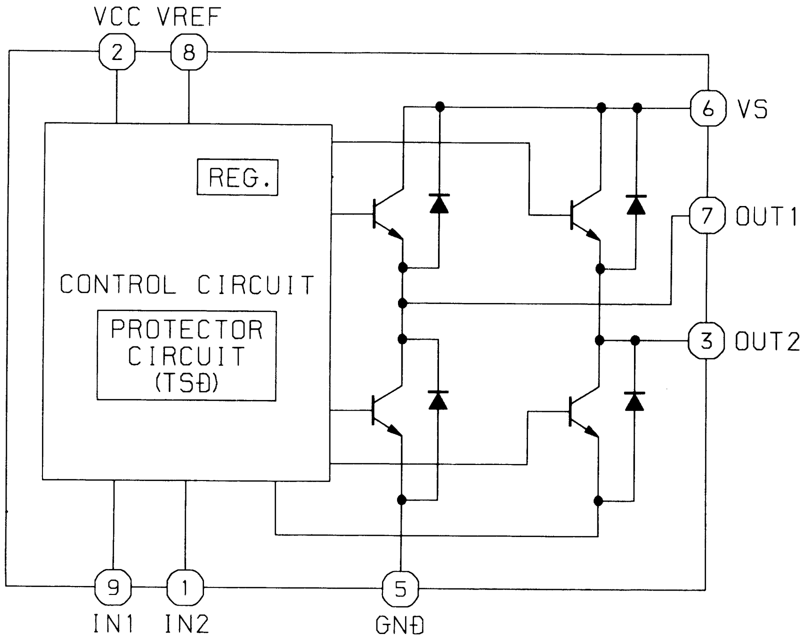


A MAIN C.B
CON601
TO B FRONT C.B CON101
MS
TM-BASE
M-CLK
M-DATA
TUNE/IFC
STEREO
M-STB
MUTE
O-PWM
PLL-CB
CROM1
CROM2
HSP
POWER
FIL1
FIL2
HOLD
D-GND
VM
-VFL
D-GND
SURR-MUTE
MIC
OUT-L
OUT-R
A-GND
IN-L
IN-R
A-GND
VCC
TC701 CLOCK FREQ ADJ
IC720 LC72131
PLL
X721 XTAL7.2MHz
Q771 2SC3266 GR
REG.
Q772 DTA114 YS
+B SW
IC770 LA1836
DECODER
BUFFERS
L701 TRAP MPX
L702 TRAP MPX
TP7
TP6
IC503 TC4052BP
FUNCTION
IC502 BA3836
V-FADE
Q523 RN1404
TAPE SW
Q524 RN1404
TAPE SW
KEY-CON
K HEAD-2 C.B
AZIMUTH ADJ
DECK 2
R CH
L CH
RPH EH
CON351
PIN351
SFR451.452
REC/PB FREQ RESP. ADJ
LH:AC 20V
CR:AC 28.5V
Q451~453
BIAS OSC
Q453 2SC3331 T
BIAS SW
Q451.452 1SS181
BIAS OSC
BIAS OSC FREQ. ADJ
L451 OSC 85K BIAS
L404 TRAP 85KHz
L403 TRAP 85KHz
IC301 HA12185
DECK IC
SFR301~304
PB SENS. ADJ
Q351.352
REC SW
CON301
PIN301
DECK 1
J HEAD-1 C.B
AZIMUTH ADJ
PB:0
REC:10.7
LH:0
CR:7.7
TP8
TP9
IC501 HA12134A
IC501
DOLBY AMP
DOLBY OFF:0
DOLBY ON:10
SFR305.306
REC/PB SENS. ADJ
Q521.522
MS LEVEL DET.
Q522 2SC2712 GR
Q521 2SC2712 GR
IC602.603
SHIFT REGISTER
IC603 TC4094 BP
IC602 TC4094 BP


FFE801 FE PACK 2EX
FM FRONT END
J801 ANTENNA
FM 75Ω
AM
Q806 DTA114 YS SW
Q805 2SC2714 O FM IF AMP
CF802 SFE10.7 MA5
CF801 SFE10.7 MA5
L741 FMDET N 5AG
DC BAL./MONO DISTORTION ADJ
AM IF ADJ
L742 CFAZ 450A
IC770 LA1836 DECODER
BUFFERS
L701 TRAP MPX
L702 TRAP MPX
X703 CSB456 F15
Q947 2SK543 S
AM RF AMP
L981 (1/3) AMPACK 3 (SG1)
L981 (2/3) AMPACK 3 (SG1)
L981 (3/3) AMPACK 3 (SG1)
AM TRACKING ADJ
SFR722 AUTO STOP LEVEL ADJ.
J652 VIDEO/AUX PHONO L/R
AUX (L)
PHONO (L)
AUX (R)
PHONO (R)
VR651 50K BX2
VR651 VIDEO/AUX INPUT LEVEL
MUTE
SURR-MUTE
Q223 MUTE CONTROL
Q223 KTA1266 GR
IC502 BA3836 V-FADER
IC220 STK-419-140A POWER AMP
CON604
FROM L CD MAIN C.B CON5
VM
D-GND
FUNC-CD
R CH
A-GND
L CH
PR112 1A 60V
Q221 2SC3326 B MUTE
Q222 2SC3326 B
Q224 MUTE FOR POWER ON
Q260 DTA114YS SPEAKER MUTE
J252 PHONES
Q241 2SC2712 GR
Q242 DTC144EK
Q241, 242 TEMPERATURE DET
J253 SUPER WOOFER
J254 SPEAKER
RN1404
KEY-CON
IC650 M65847FP
Q107, 108 OVERLOAD DETECT
Q107 2SC3722
Q108 2SC3722
R105 0.1-2W MF
R106 0.1-2W MF
D101 RS603M
RY101 DSA-5A-212DM5
D123 1SS131
Q102 2SA1318 TU
Q112 2SA1318 TU
D105 1N4003
D107 1N4003
D106 1N4003
D124 DSF10TC
D125 DSF10TC
Q102, 112 REG.
D114 HZS33-2
Q151, 152 POWER AMP OFFSET DETECT
Q110 2SC2712 GR
Q111 2SC2712 GR RESET
Q114 2SA1162 GR
Q110, 114 AC DETECT
D108 1SS184
Q151 2SC2712 GR
D109 1SS181
Q152 2SA1162 GR
Q103 2SB1370 E
Q101 2SB1370 E
Q101, 103 ~105 REG
D111 1N4148M
Q104 KTC3198 GR
Q105 KTC3198 GR
Q106 2SC3266 GR +B SW
D113 HZS11A3L
Q521 2SC2712 GR
Q522 2SC2712 GR
IC602, 603 SHIFT REGISTER
IC602 IC4094 BP
TO H PRO.AMP C.B CON901
WH101
WH102
CON101
PR103 5A
PR104 5A
PR101 10A 60V
PR102 10A 60V
PT1 PT. HE
F PT C.B
SW101 SL1-2-3
SW101 AC VOLTAGE
120V
220-230V
240V
CF101 T 3.15AL F101
CF102
HE: AC120/220-230/240V 50/60HZ
SIGNAL:
PB/MIC/FM
REC/AM

IC BLOCK DIAGRAM – 2

IC, TA7291S



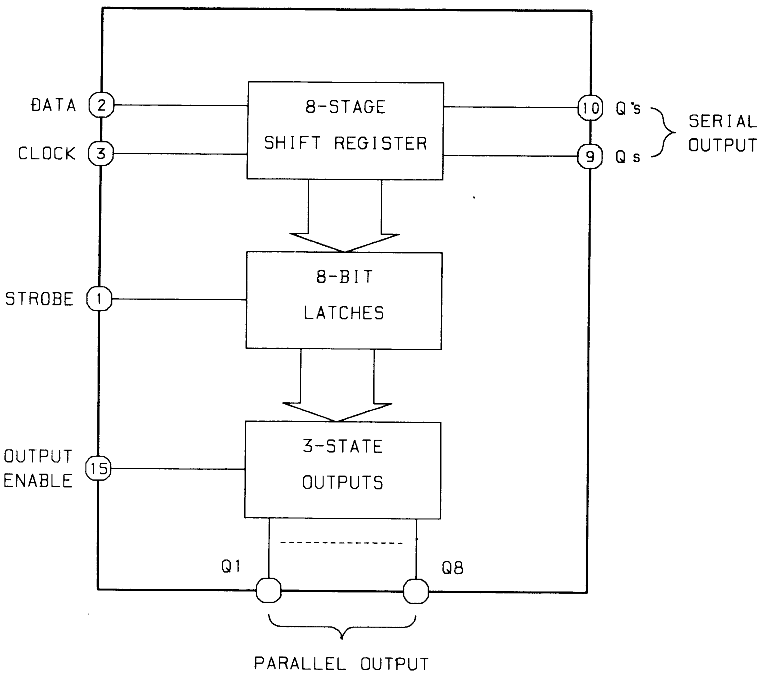
VCC
VREF
2
8
REG.
CONTROL CIRCUIT
PROTECTOR CIRCUIT (TSD)
6 VS
7 OUT1
3 OUT2
9
1
5
IN1
IN2
GND

TRUTH TABLE

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

∞ :HIGH IMPEDACE
INPUT IS "H" ACITVE

IC, BU4094BC/BCF



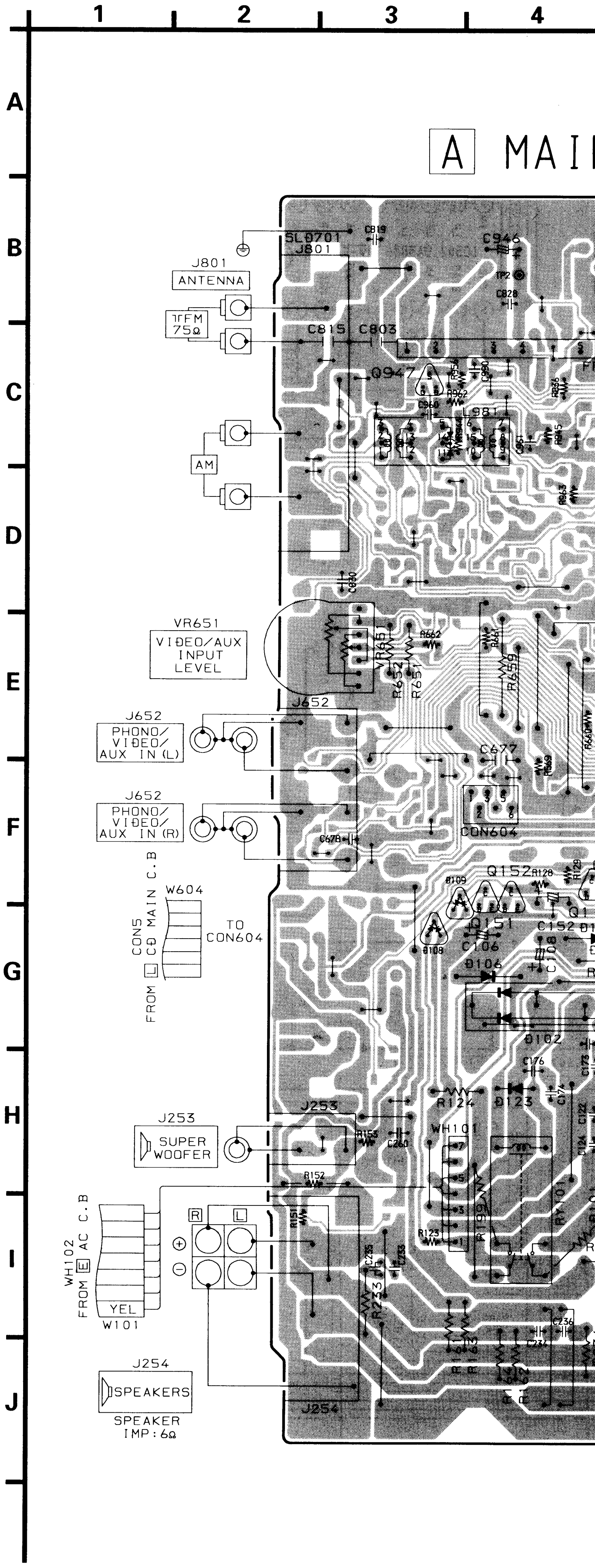
DATA 2
CLOCK 3
STROBE 1
OUTPUT ENABLE 15
8-STAGE SHIFT REGISTER
8-BIT LATCHES
3-STATE OUTPUTS
10 Q's
9 Qs
SERIAL OUTPUT
Q1
Q8
PARALLEL OUTPUT

TRUTH TABLE

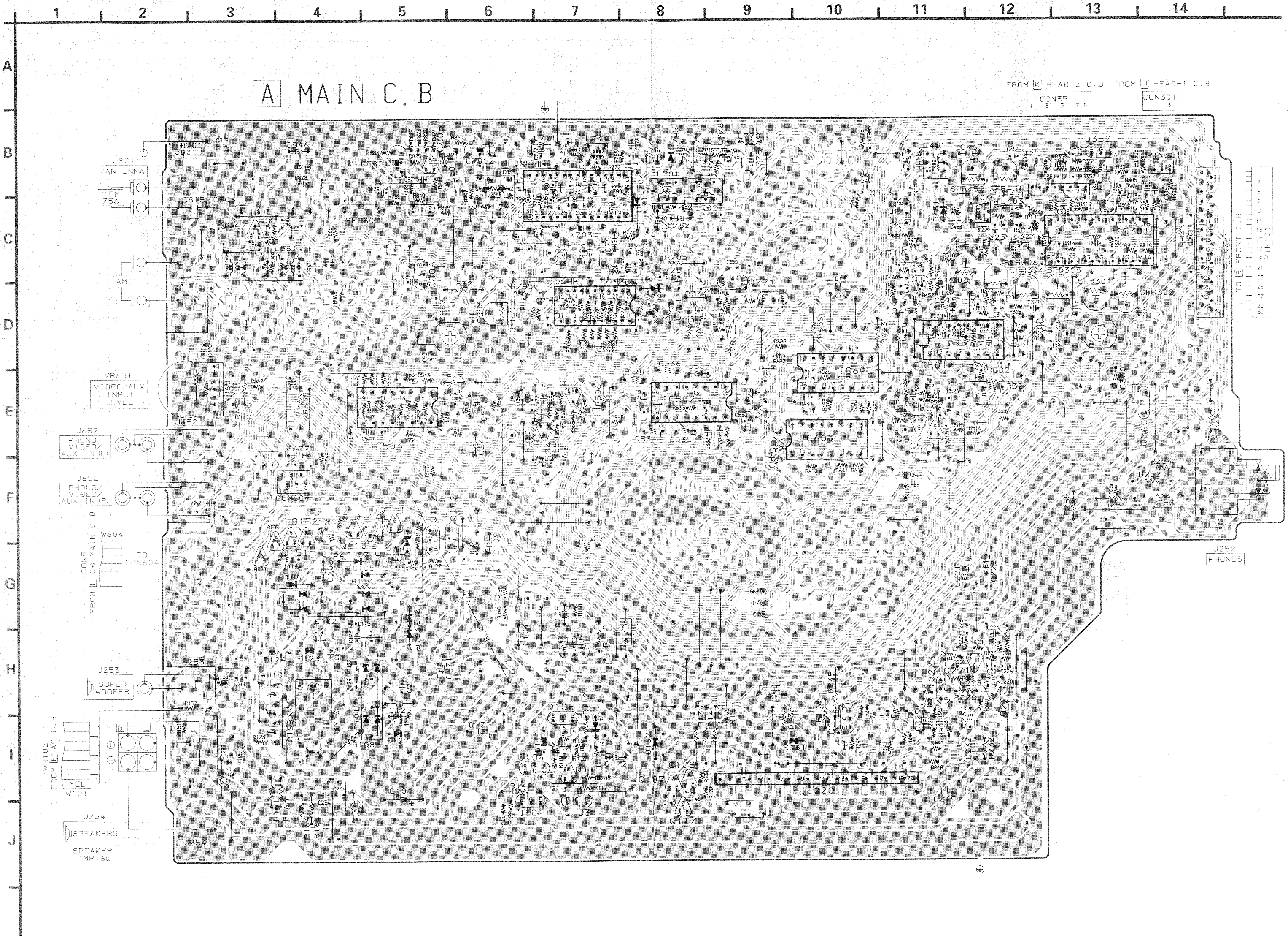
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↑	L	×	×	Z	Z	Q7	NO Chg.
↓	L	×	×	Z	Z	No Chg.	Qs
↑	H	L	×	No Chg.	No Chg.	Q7	No Chg.
↑	H	H	L	L	Qn-1	Q7	No Chg.
↑	H	H	H	H	Qn-1	Q7	No Chg.
↓	H	×	×	No Chg.	No Chg.	No Chg.	Qs

Z=High Impedance
X=Don't Care

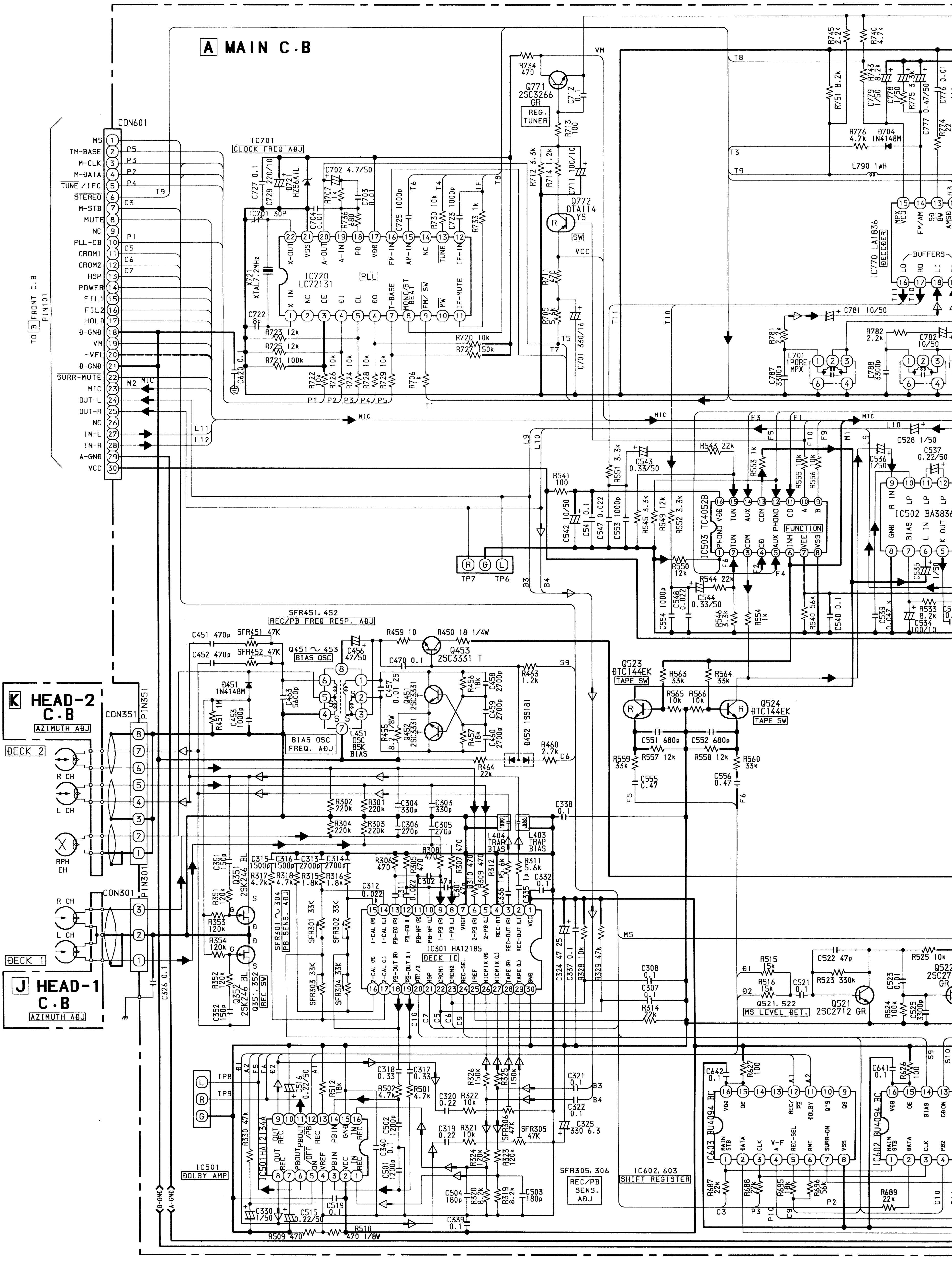
WIRING – 3 (MAIN : U)

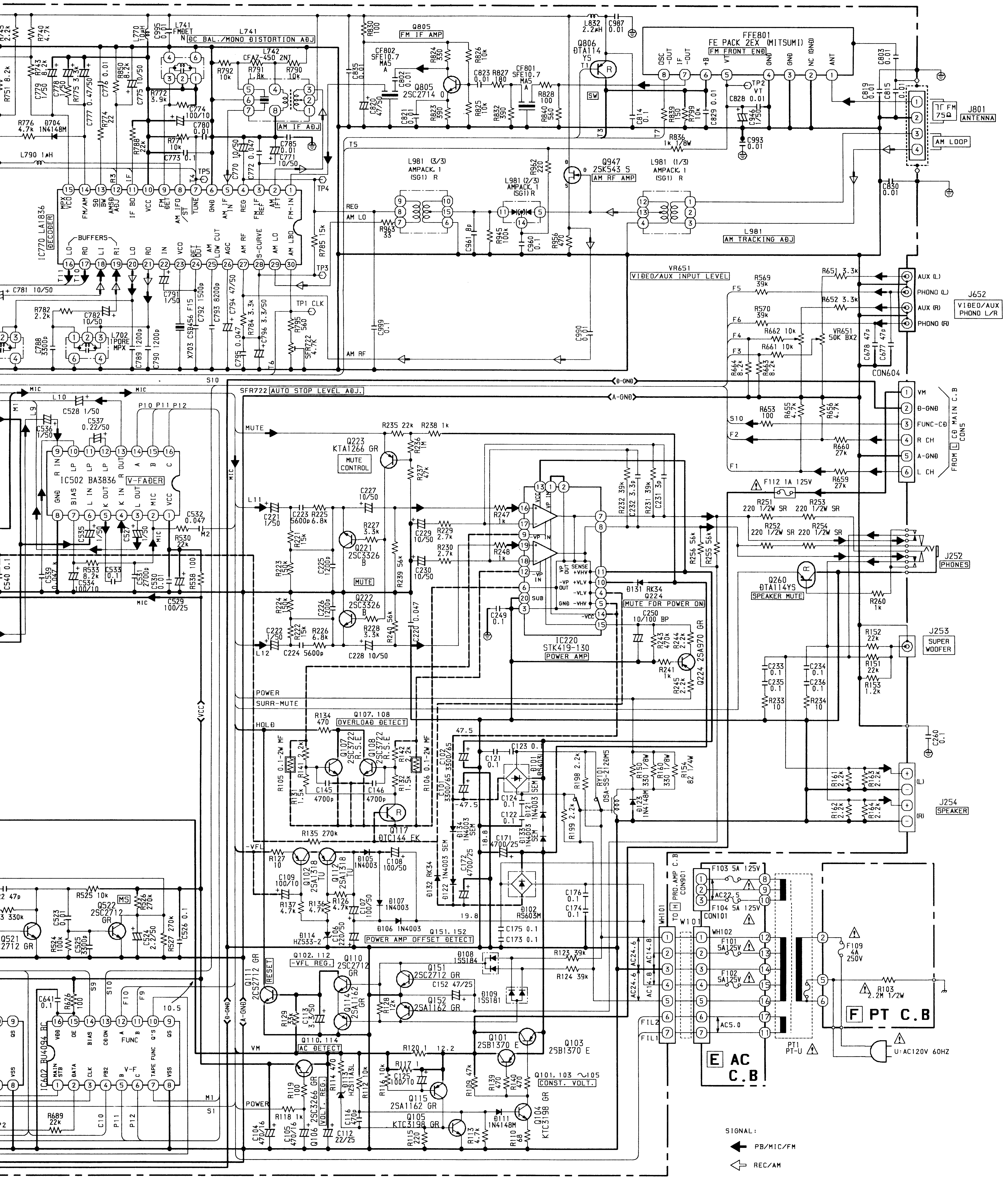


1
2
3
4
A
B
C
D
E
F
G
H
I
J
A MAI
J801
ANTENNA
FM 75Ω
AM
VR651
VIDEO/AUX INPUT LEVEL
J652
PHONO/VIDEO/AUX IN (L)
J652
PHONO/VIDEO/AUX IN (R)
FROM C CD MAIN C.B CON5
W604
TO CON604
J253
SUPER WOOFER
FROM E AC C.B WH102
W101
YEL
R
L
⊕
⊖
J254
SPEAKERS
SPEAKER IMP: 6Ω
SL0701
C815
C803
Q947
C946
L981
J652
C677
CON604
Q152
Q151
C152
C106
D106
D102
R124
D123
J253
WH101
J254


A MAIN C.B
FROM K HEAD-2 C.B
CON351
1 3 5 7 8
FROM J HEAD-1 C.B
CON301
1 3
J801
ANTENNA
FM 75Ω
AM
VR651
VIDEO/AUX INPUT LEVEL
J652
PHONO/VIDEO/AUX IN (L)
J652
PHONO/VIDEO/AUX IN (R)
W604
TO CON604
FROM L CD MAIN C.B CON5
J253
SUPER WOOFER
WH102
FROM E AC C.B
YEL
W101
J254
SPEAKERS
SPEAKER IMP: 6Ω
J252
PHONES
CON601
TO B FRONT C.B PIN101
IC770
IC720
IC701
IC301
IC501
IC502
IC503
IC602
IC603
IC220
Q947
Q352
Q351
Q451
Q452
Q453
Q522
Q521
Q523
Q771
Q772
Q260
Q221
Q222
Q223
Q224
Q101
Q102
Q103
Q104
Q105
Q106
Q107
Q108
Q110
Q111
Q112
Q115
Q117
Q151
Q152
RY101
FFE801
CF801
CF802
L741
L742
L770
L701
L702
L451
L832
L981
X703
X721
SFR722
SFR452
SFR451
SFR306
SFR304
SFR303
SFR305
SFR301
SFR302
CON604
WH101
GND
TP6
TP7
TP8
TP9
R254
R252
R251
R253
R255
R105
C101
C102
C172
C249
C250
C527
C903
C946
C815
C803
SL0701

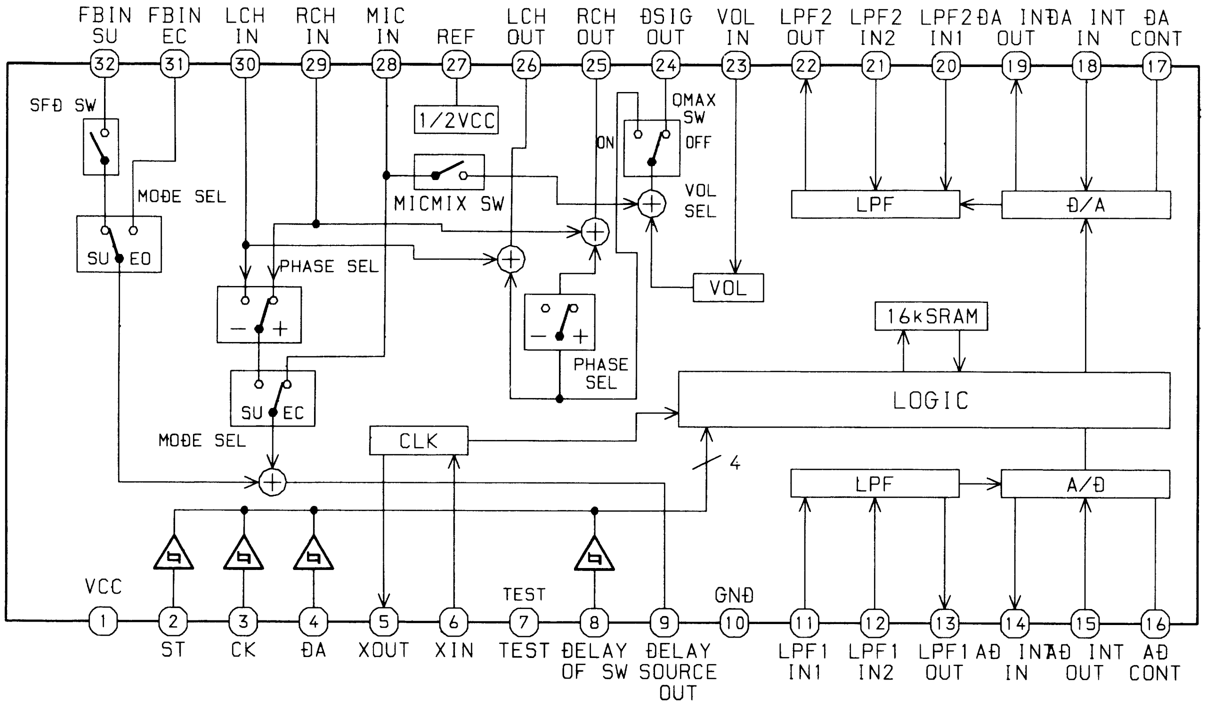
SCHEMATIC DIAGRAM – 3 (MAIN : U)


A MAIN C·B
CON601
TO B FRONT C.B PIN101
MS
TM-BASE
M-CLK
M-DATA
TUNE / IFC
STEREO
M-STB
MUTE
NC
PLL-CB
CROM1
CROM2
HSP
POWER
FIL1
FIL2
HOLD
D-GND
VM
-VFL
D-GND
SURR-MUTE
MIC
OUT-L
OUT-R
NC
IN-L
IN-R
A-GND
VCC
TC701 CLOCK FREQ ADJ
IC720 LC72131 PLL
X721 XTAL7.2MHz
Q771 2SC3266 GR
REG. TUNER
Q772 DTA114 YS
SW
VCC
IC770 LA1836 DECODER
BUFFERS
L701 1PORE MPX
TP7 TP6
IC503 TC4052B FUNCTION
IC502 BA3836
Q523 DTC144EK TAPE SW
Q524 DTC144EK TAPE SW
K HEAD-2 C·B AZIMUTH ADJ
DECK 2
R CH
L CH
RPH EH
CON351
PIN351
CON301
PIN301
DECK 1
J HEAD-1 C·B AZIMUTH ADJ
SFR451, 452 REC/PB FREQ RESP. ADJ
Q451 ~ 453 BIAS OSC
Q453 2SC3331 T
L451 OSC 85K BIAS
BIAS OSC FREQ. ADJ
Q451 2SC3331
Q452 2SC3331
D451 1N4148M
D452 1SS181
L404 TRAP BIAS
L403 TRAP BIAS
Q351 2SK246 BL
Q352 2SK246 BL
Q351, 352 REC SW
SFR301 ~ 304 PB SENS. ADJ
IC301 HA12185 DECK IC
Q521, 522 MS LEVEL DET.
Q521 2SC2712 GR
TP8 TP9
IC501 HA12134A DOLBY AMP
SFR305, 306 REC/PB SENS. ADJ
IC602, 603 SHIFT REGISTER
IC603 BU4094 BC
IC602 BU4094 BC
D-GND
A-GND


L741
DC BAL./MONO DISTORTION ADJ
L742 CFAZ-450 2NT
AM IF ADJ
IC770 LA1836
DECODER
BUFFERS
Q805
FM IF AMP
CF802 SFE10.7 MA5
CF801 SFE10.7 MA5
Q805 2SC2714 O
Q806 DTA114 YS
SW
FFE801
FE PACK 2EX (MITSUMI)
FM FRONT END
OSC -OUT
IF -OUT
+B
VT
GND
NC (GND)
ANT
TP1 CLK
TP2 VT
TP3
TP4
TP5
J801
FM 75Ω
ANTENNA
AM LOOP
Q947 2SK543 S
AM RF AMP
L981 (3/3) AMPACK. 1 (SG1) R
L981 (2/3) AMPACK. 1 (SG1) R
L981 (1/3) AMPACK. 1 (SG1) R
L981
AM TRACKING ADJ
REG
AM LO
AM RF
VR651
VIDEO/AUX INPUT LEVEL
AUX (L)
PHONO (L)
AUX (R)
PHONO (R)
J652
VIDEO/AUX PHONO L/R
VR651 50K BX2
CON604
VM
D-GND
FUNC-CD
R CH
A-GND
L CH
FROM CD MAIN C.B CON5
SFR722
AUTO STOP LEVEL ADJ.
IC502 BA3836
V-FADER
MUTE
Q223 KTA1266 GR
MUTE CONTROL
Q221 2SC3326 B
Q222 2SC3326 B
MUTE
IC220 STK419-130
POWER AMP
F112 1A 125V
J252
PHONES
Q260 DTA114YS
SPEAKER MUTE
Q224 2SA970 GR
MUTE FOR POWER ON
D131 RK34
J253
SUPER WOOFER
POWER
SURR-MUTE
HOLD
Q107, 108
OVERLOAD DETECT
Q107 2SC3722 R.S.E
Q108 2SC3722 R.S.E
Q117 DTC144 EK
RY101 DSA-SS-212DM5
D101 RS403L
D102 RS603M
D132 RK34
J254
SPEAKER
Q102 2SA1318 TU
Q112 2SA1318 TU
Q151, 152
POWER AMP OFFSET DETECT
Q151 2SC2712 GR
Q152 2SA1162 GR
D108 1SS184
D109 1SS181
Q102, 112
-VFL REG.
Q110 2SC2712 GR
Q114 2SA1162 GR
Q111 2SC2712 GR
RESET
Q110, 114
AC DETECT
Q101 2SB1370 E
Q103 2SB1370 E
Q101, 103 ~105
CONST. VOLT.
Q104 KTC3198 GR
Q105 KTC3198 GR
Q115 2SA1162 GR
Q106 2SC3266 GR
VOLT. REG.
Q521 2SC2712 GR
Q522 2SC2712 GR
MS
IC602 BU4094 BC
TO H PRO.AMP C.B CON901
WH101
W101
CON101
WH102
F103 5A 125V
F104 5A 125V
F101 5A125V
F102 5A125V
F109 4A 250V
R103 2.2M 1/2W
E AC C.B
F PT C.B
PT1 PT-U
U:AC120V 60HZ
SIGNAL:
PB/MIC/FM
REC/AM

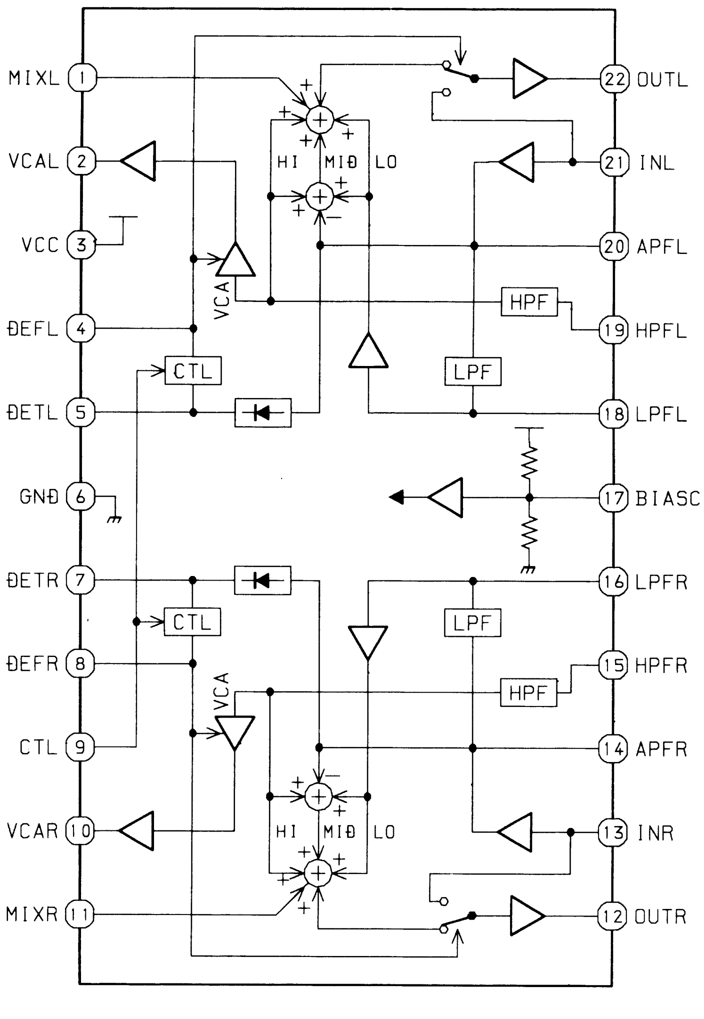
IC BLOCK DIAGRAM – 3

IC, M65849FP



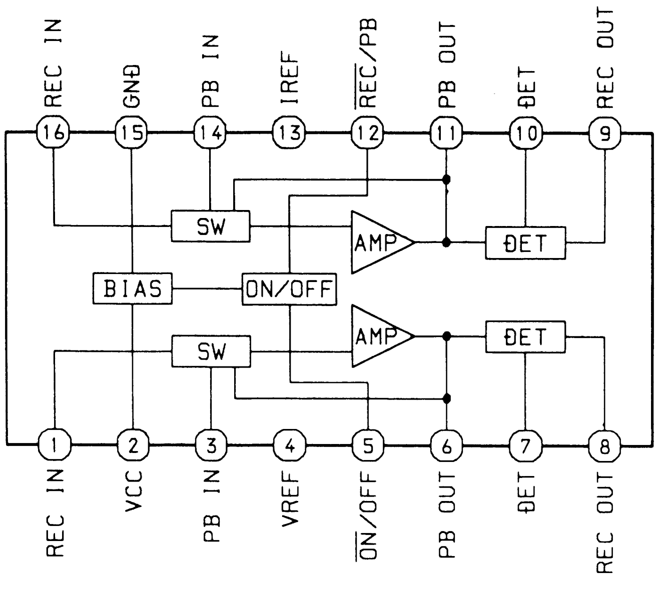
FBIN SU
FBIN EC
LCH IN
RCH IN
MIC IN
REF
LCH OUT
RCH OUT
ĐSIG OUT
VOL IN
LPF2 OUT
LPF2 IN2
LPF2 IN1
ĐA OUT
INĐA IN
INT IN
ĐA CONT
SFĐ SW
MODE SEL
SU EO
PHASE SEL
1/2VCC
MICMIX SW
OMAX SW
ON
OFF
VOL SEL
VOL
LPF
Đ/A
16kSRAM
LOGIC
SU EC
MODE SEL
CLK
PHASE SEL
4
LPF
A/Đ
VCC
TEST
GNĐ
ST
CK
ĐA
XOUT
XIN
TEST
ĐELAY OF SW
ĐELAY SOURCE OUT
LPF1 IN1
LPF1 IN2
LPF1 OUT
AĐ IN
INAĐ OUT
INT AĐ CONT

IC, BA3880S



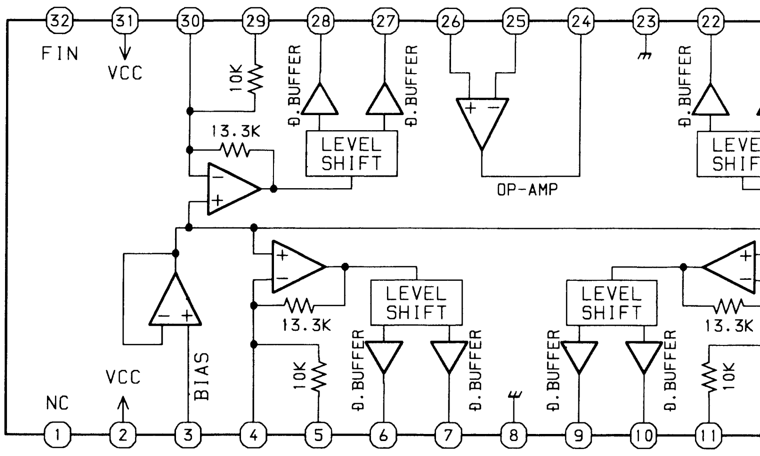
MIXL
VCAL
VCC
ĐEFL
ĐETL
GNĐ
ĐETR
ĐEFR
CTL
VCAR
MIXR
OUTL
INL
APFL
HPFL
LPFL
BIASC
LPFR
HPFR
APFR
INR
OUTR
HI
MIĐ
LO
VCA
HPF
CTL
LPF

IC, HA12134A



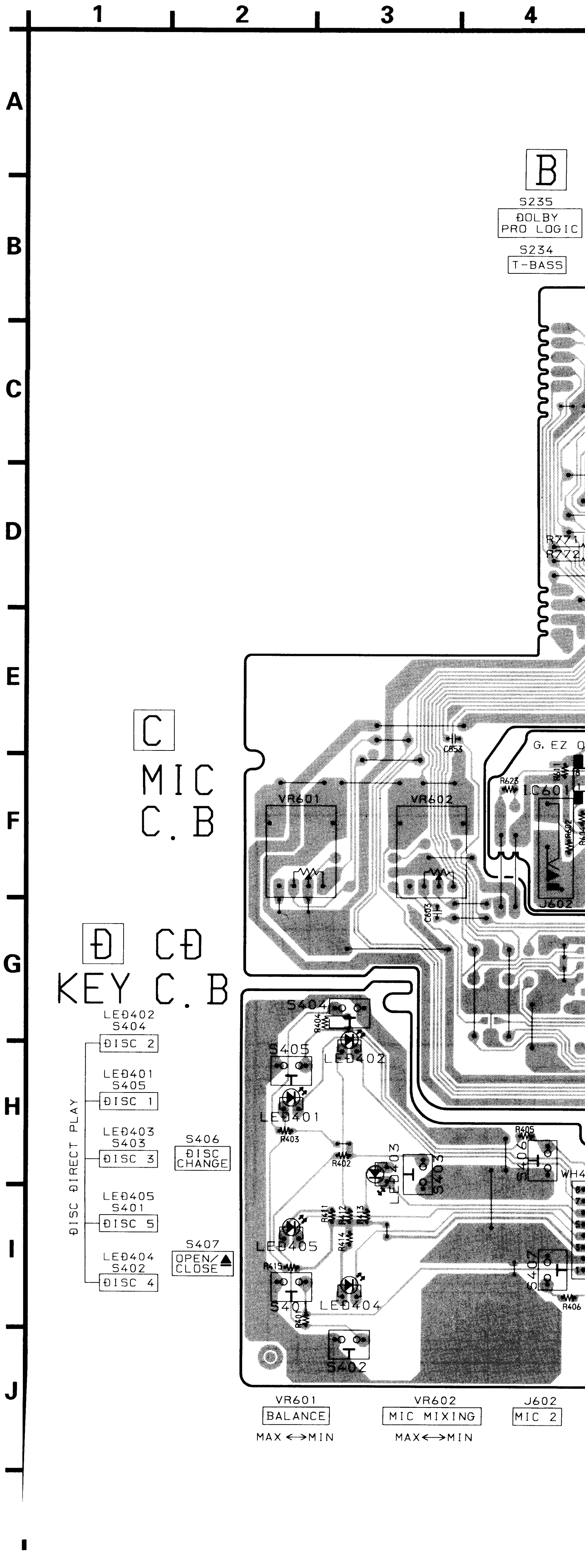
REC IN
GNĐ
PB IN
IREF
REC/PB
PB OUT
ĐET
REC OUT
SW
AMP
ĐET
BIAS
ON/OFF
SW
AMP
ĐET
REC IN
VCC
PB IN
VREF
ON/OFF
PB OUT
ĐET
REC OUT

IC, BA6897S



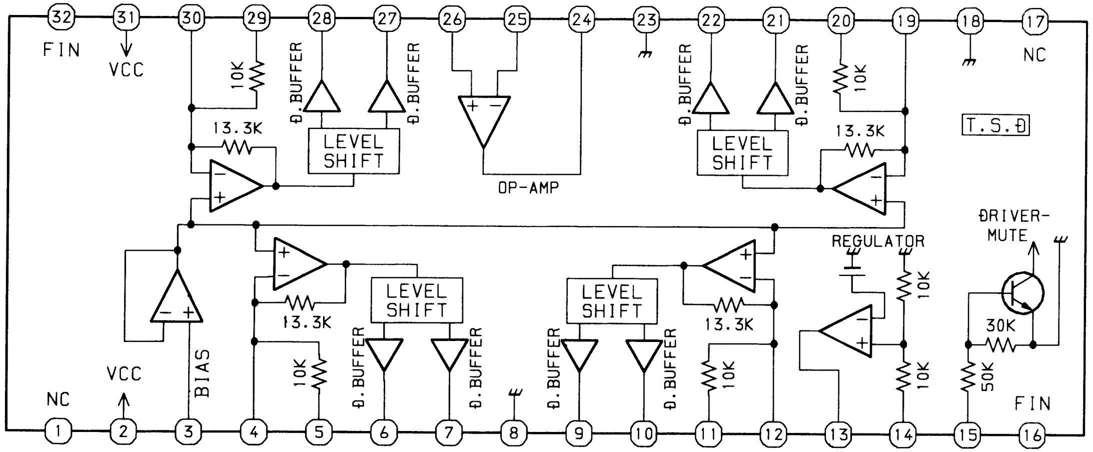
FIN
VCC
10K
13.3K
Đ.BUFFER
LEVEL SHIFT
OP-AMP
BIAS
NC
VCC

WIRING – 4 (FRONT)



1
2
3
4
A
B
C
D
E
F
G
H
I
J
B
S235
ĐOLBY PRO LOGIC
S234
T-BASS
C
MIC C.B
Đ
CĐ KEY C.B
LEĐ402 S404 ĐISC 2
LEĐ401 S405 ĐISC 1
LEĐ403 S403 ĐISC 3
LEĐ405 S401 ĐISC 5
LEĐ404 S402 ĐISC 4
ĐISC ĐIRECT PLAY
S406 ĐISC CHANGE
S407 OPEN/CLOSE
VR601 BALANCE MAX⟷MIN
VR602 MIC MIXING MAX⟷MIN
J602 MIC 2

IC, BA6897S


32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
FIN
VCC
NC
10K
D.BUFFER
D.BUFFER
D.BUFFER
D.BUFFER
LEVEL SHIFT
LEVEL SHIFT
OP-AMP
13.3K
13.3K
10K
T.S.D
REGULATOR
DRIVER-MUTE
LEVEL SHIFT
LEVEL SHIFT
13.3K
13.3K
10K
10K
10K
30K
50K
10K
BIAS
D.BUFFER
D.BUFFER
D.BUFFER
D.BUFFER
VCC
NC
FIN
1
2
3
4
5
6
7
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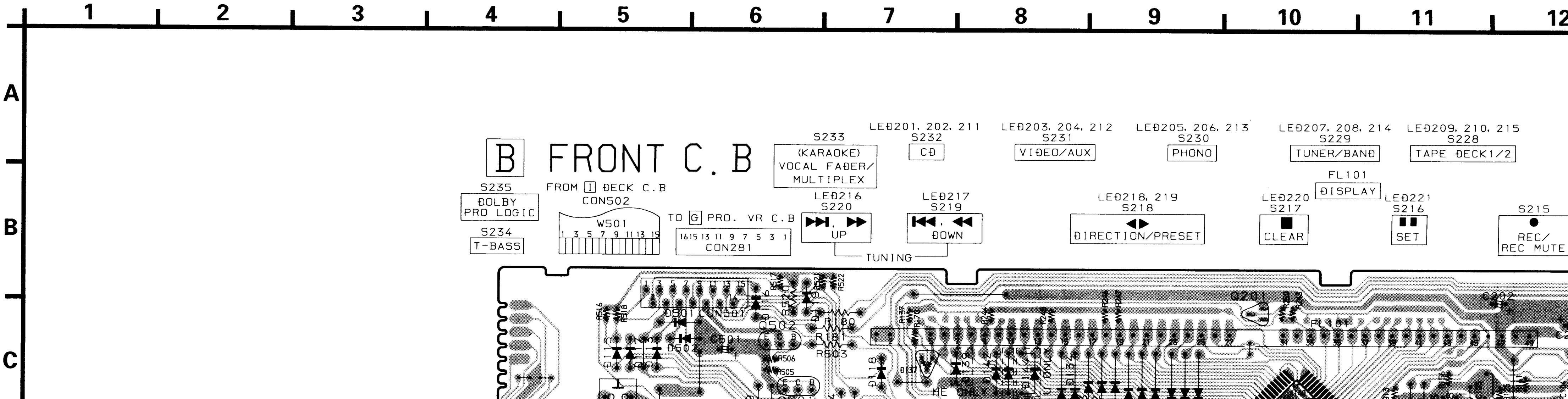
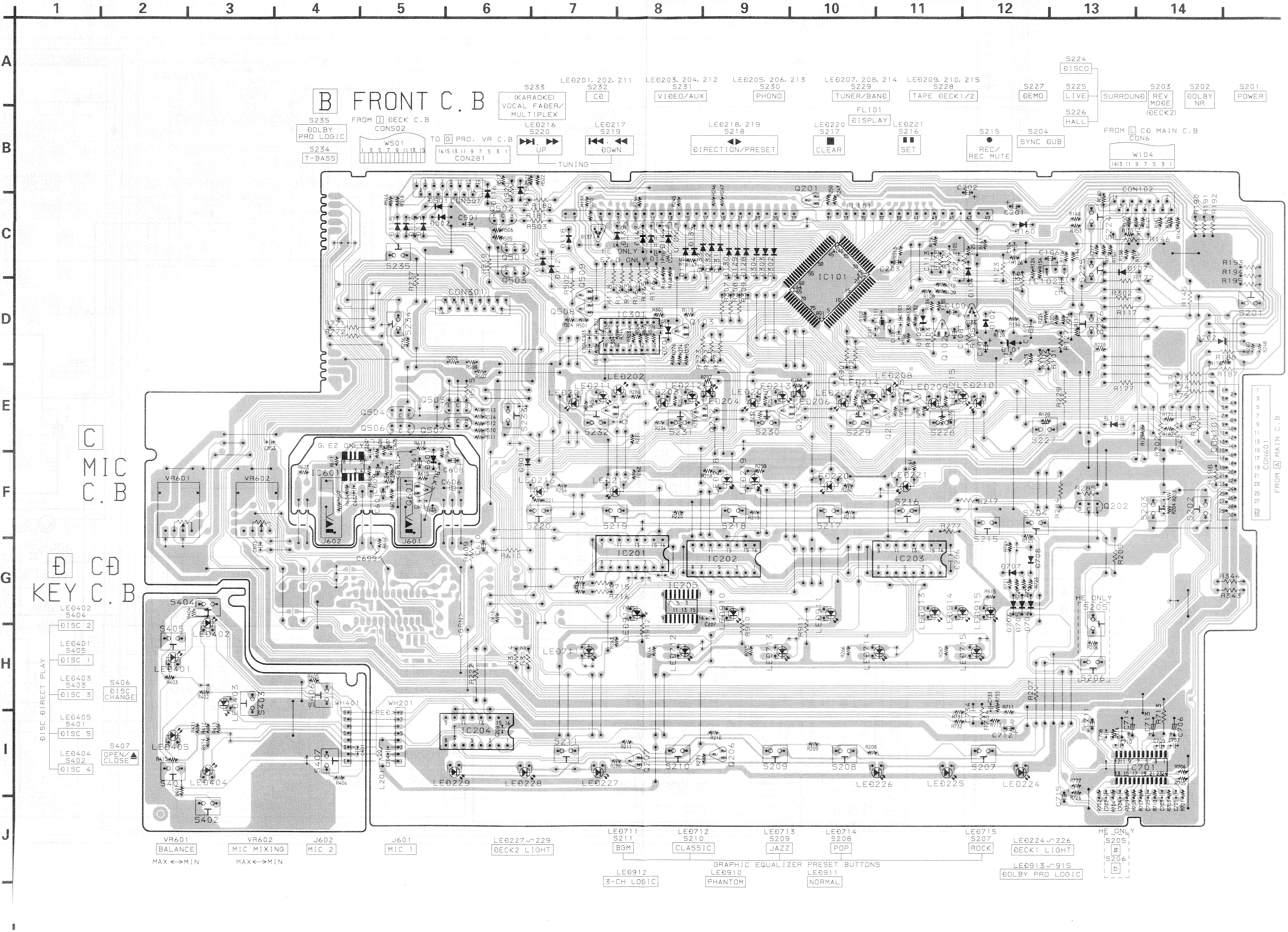
10
11
12
13
14
15
16

T.S.D: Thermal shift down circuit
D.BUFFER: Drive Buffer

WIRING – 4 (FRONT)


1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
B FRONT C.B
S233
(KARAOKE)
VOCAL FADER/
MULTIPLEX
LED201, 202, 211
S232
CD
LED203, 204, 212
S231
VIDEO/AUX
LED205, 206, 213
S230
PHONO
LED207, 208, 214
S229
TUNER/BAND
LED209, 210, 215
S228
TAPE DECK1/2
S235
DOLBY
PRO LOGIC
FROM I DECK C.B
CON502
W501
1 3 5 7 9 11 13 15
S234
T-BASS
TO G PRO. VR C.B
16 15 13 11 9 7 5 3 1
CON281
LED216
S220
▶▶I, ▶▶
UP
LED217
S219
I◀◀, ◀◀
DOWN
TUNING
LED218, 219
S218
◀▶
DIRECTION/PRESET
FL101
DISPLAY
LED220
S217
■
CLEAR
LED221
S216
▮▮
SET
S215
●
REC/
REC MUTE
D501
CON501
D502
C501
Q502
R180
R181
R503
R505
R506
R516
R518
R517
R522
D115
D118
D137
Q201
FL101
C202

WIRING – 4 (FRONT)


1
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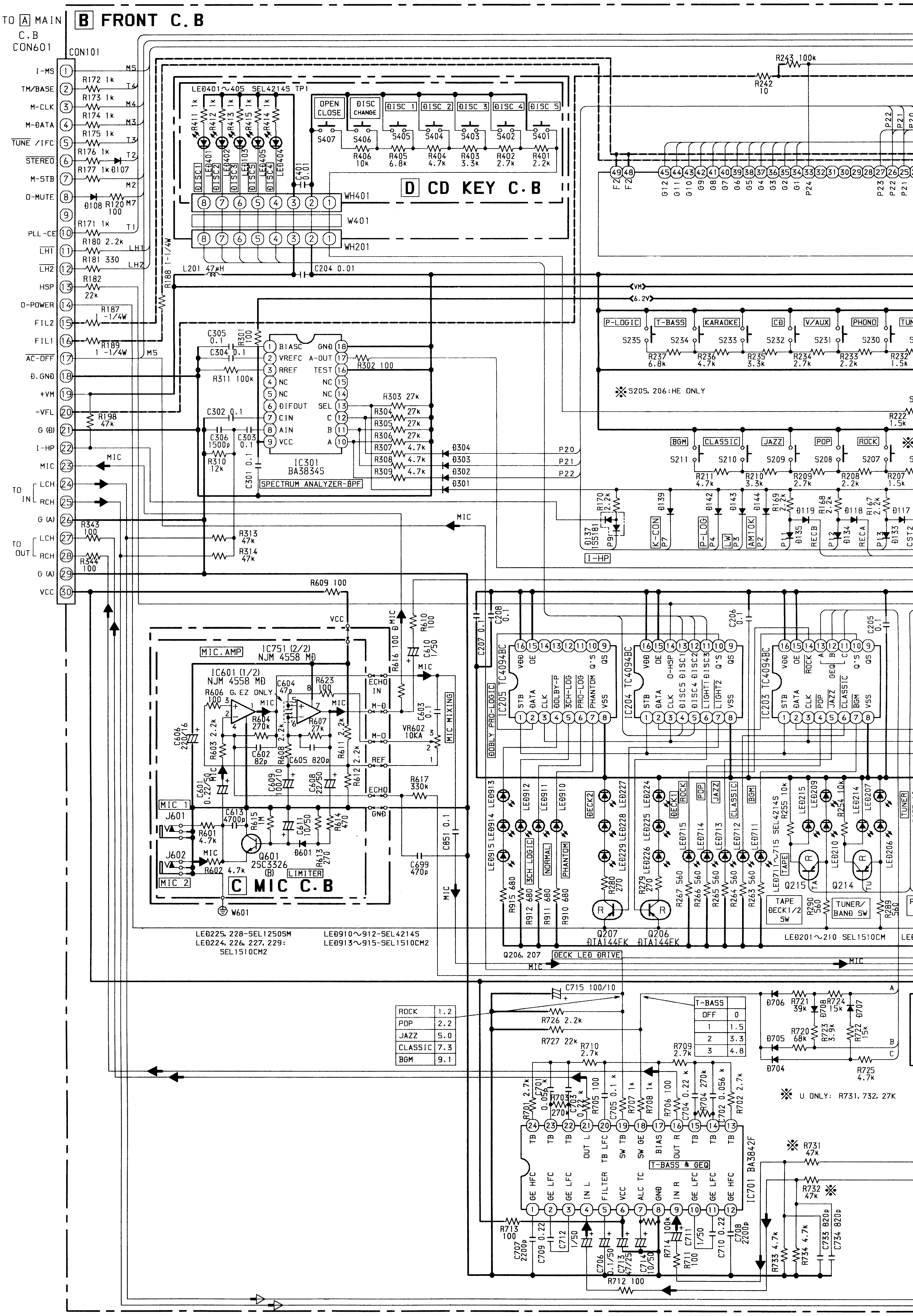
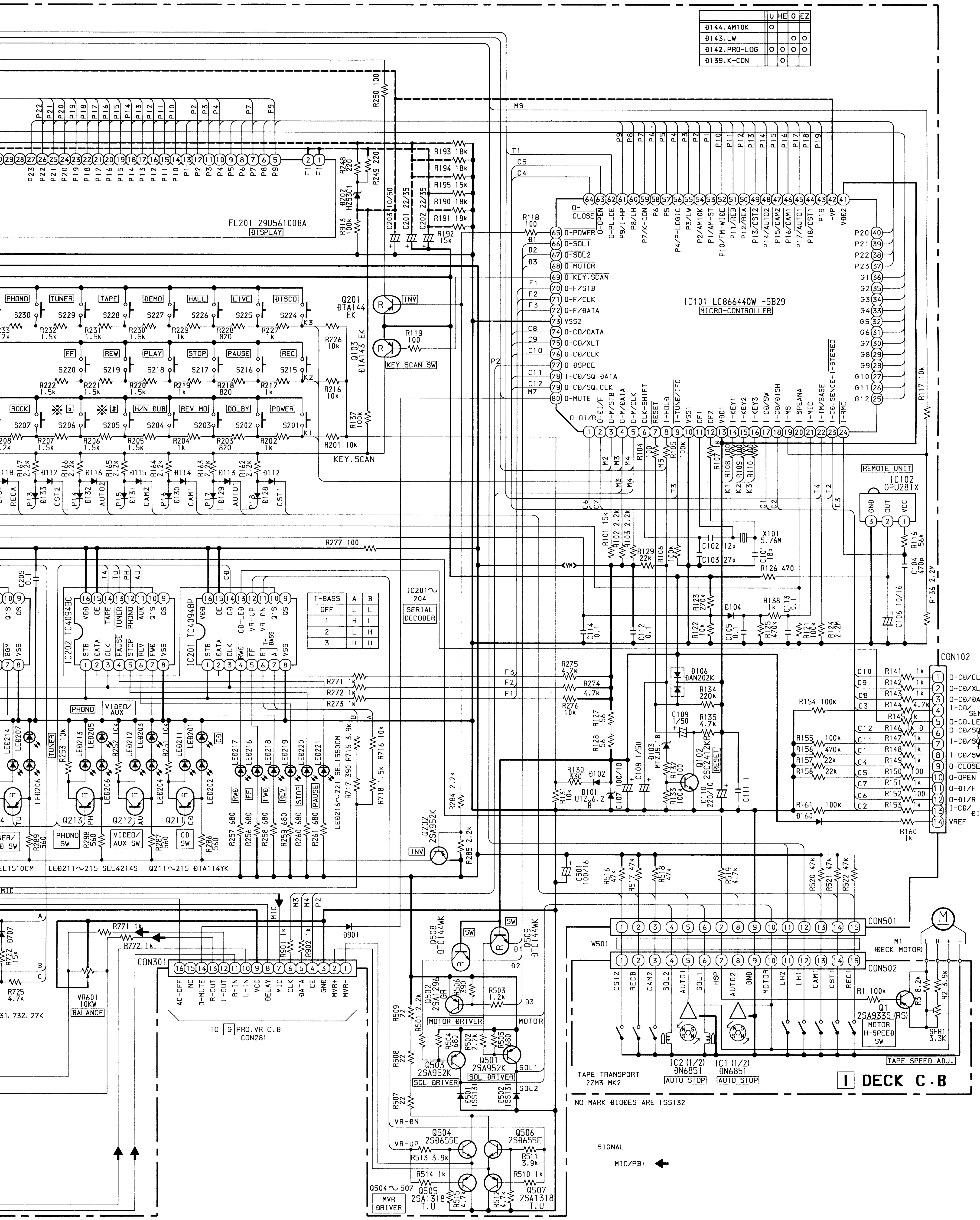
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
B FRONT C.B
FROM I DECK C.B
CON502
W501
TO G PRO. VR C.B
CON281
S235
DOLBY PRO LOGIC
S234
T-BASS
S233
(KARAOKE) VOCAL FADER/ MULTIPLEX
LED201, 202, 211
S232
CD
LED203, 204, 212
S231
VIDEO/AUX
LED205, 206, 213
S230
PHONO
LED207, 208, 214
S229
TUNER/BAND
LED209, 210, 215
S228
TAPE DECK1/2
S227
DEMO
S224
DISCO
S225
LIVE
S226
HALL
SURROUND
S203
REV MODE
(DECK2)
S202
DOLBY NR
S201
POWER
LED216
S220
▶▶I, ▶▶
UP
LED217
S219
I◀◀, ◀◀
DOWN
TUNING
LED218, 219
S218
◀▶
DIRECTION/PRESET
FL101
DISPLAY
LED220
S217
■
CLEAR
LED221
S216
▮▮
SET
S215
●
REC/ REC MUTE
S204
SYNC DUB
FROM L CD MAIN C.B
CON6
W104
CON102
CON101
CON301
CON501
IC101
IC301
IC201
IC202
IC203
IC204
IC205
IC601
IC701
Q201
Q202
FL101
HE ONLY
EZ, G ONLY
G, EZ ONLY
C MIC C.B
VR601
VR602
J602
J601
WH401
WH201
<RED>
<GRN>
D CD KEY C.B
DISC DIRECT PLAY
LED402
S404
DISC 2
LED401
S405
DISC 1
LED403
S403
DISC 3
LED405
S401
DISC 5
LED404
S402
DISC 4
S406
DISC CHANGE
S407
OPEN/▲ CLOSE
VR601
BALANCE
MAX⟷MIN
VR602
MIC MIXING
MAX⟷MIN
J602
MIC 2
J601
MIC 1
LED227∼229
DECK2 LIGHT
LED711
S211
BGM
LED712
S210
CLASSIC
LED713
S209
JAZZ
LED714
S208
POP
LED715
S207
ROCK
LED224∼226
DECK1 LIGHT
HE ONLY
S205
#
S206
b
GRAPHIC EQUALIZER PRESET BUTTONS
LED912
3-CH LOGIC
LED910
PHANTOM
LED911
NORMAL
LED913∼915
DOLBY PRO LOGIC
FROM A MAIN C.B
CON601

SCHEMATIC DIAGRAM – 4 (FRONT)


TO A MAIN C.B CON601
B FRONT C.B
CON101
I-MS
TM/BASE
M-CLK
M-DATA
TUNE /IFC
STEREO
M-STB
D-MUTE
PLL-CE
LH1
LH2
HSP
D-POWER
FIL2
FIL1
AC-OFF
D.GND
+VM
-VFL
G (D)
I-HP
MIC
TO IN LCH RCH
G (A)
TO OUT LCH RCH
VCC
D CD KEY C.B
LED401～405 SEL4214S TP1
OPEN CLOSE
DISC CHANGE
DISC 1
DISC 2
DISC 3
DISC 4
DISC 5
S407 S406 S405 S404 S403 S402 S401
R406 10k R405 6.8k R404 4.7k R403 3.3k R402 2.7k R401 2.2k
WH401
W401
WH201
L201 47μH
C204 0.01
R243 100k
R242 10
IC301 BA3834S
SPECTRUM ANALYZER-BPF
BIASC GND
VREFC A-OUT
RREF TEST
DIFOUT SEL
CIN AIN VCC
P-LOGIC T-BASS KARAOKE CD V/AUX PHONO
S235 S234 S233 S232 S231 S230
※S205, 206:HE ONLY
BGM CLASSIC JAZZ POP ROCK
S211 S210 S209 S208 S207
K-CON
P-LOG
LW
AM10K
I-HP
IC205 TC4094BC
IC204 TC4094BC
IC203 TC4094BC
DOLBY PRO-LOGIC
3CH LOGIC
NORMAL
PHANTOM
DECK2
DECK1
ROCK
POP
JAZZ
CLASSIC
BGM
TAPE
TUNER/BAND SW
TAPE DECK1/2 SW
Q207 DTA144EK
Q206 DTA144EK
Q206, 207 DECK LED DRIVE
LED201～210 SEL1510CM
LED711～715 SEL4214S
MIC.AMP
IC751 (2/2) NJM 4558 MD
IC601 (1/2) NJM 4558 MD
R606 G, EZ ONLY
VR602 10KA
MIC MIXING
ECHO IN
M-D
M-O
REF
ECHO
GND
MIC 1 J601
MIC 2 J602
Q601 2SC3326 (B)
D601
LIMITER
C MIC C.B
W601
LED225, 228-SEL1250SM
LED224, 226, 227, 229: SEL1510CM2
LED910～912-SEL4214S
LED913～915-SEL1510CM2
C715 100/10
R726 2.2k
R727 22k
ROCK 1.2
POP 2.2
JAZZ 5.0
CLASSIC 7.3
BGM 9.1
T-BASS
OFF 0
1 1.5
2 3.3
3 4.8
※ U ONLY: R731, 732, 27K
IC701 BA3842F
T-BASS & GEQ
GE HFC GE LFC IN L FILTER VCC ALC TC GND IN R
TB OUT L TB LFC SW TB SW GE BIAS OUT R
R712 100



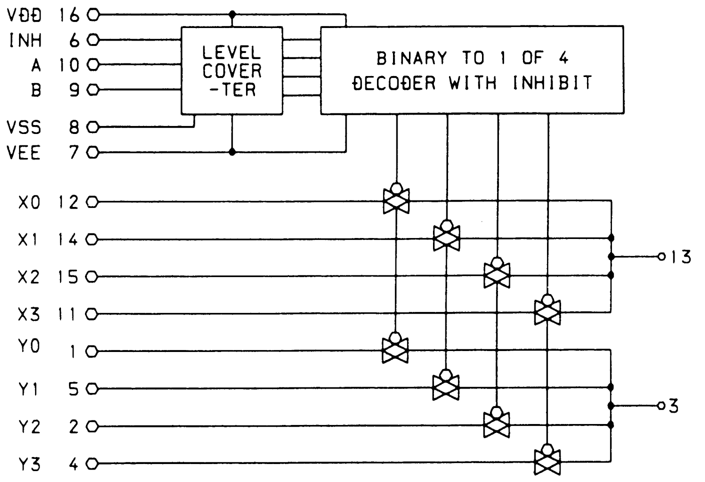
	U	HE	G	EZ
D144.AM10K	○			
D143.LW			○	○
D142.PRO-LOG	○	○	○	○
D139.K-CON		○		

T-BASS	A	B
OFF	L	L
1	H	L
2	L	H
3	H	H

FL201 29U56100BA
DISPLAY
IC101 LC866440W -5B29
MICRO-CONTROLLER
IC202 TC4094BC
IC201 TC4094BP
IC201～204 SERIAL DECODER
REMOTE UNIT
IC102 GPU281X
X101 5.76M
CON102
TO L CD MAIN C.B CON6
CON501
W501
CON502
M1 (DECK MOTOR)
CON301
TO G PRO.VR C.B CON281
VR601 10KW BALANCE
Q201 DTA144EK
Q103 DTA143EK
KEY SCAN SW
INV
KEY.SCAN
PHONO TUNER TAPE DEMO HALL LIVE DISCO
FF REW PLAY STOP PAUSE REC
ROCK H/N DUB REV MO DOLBY POWER
LED211～215 SEL4214S
Q211～215 DTA114YK
LED216～221 SEL1550CM
Q202 2SA952K
Q508 DTC144WK
Q509 DTC144WK
Q502 2SA1296GR
MOTOR DRIVER
Q503 2SA952K
Q501 2SA952K
SOL DRIVER
Q504 2SD655E
Q506 2SD655E
Q505 2SA1318T.U
Q507 2SA1318T.U
Q504～507 MVR DRIVER
Q102 2SC2412KR
RESET
Q1 2SA933S (RS)
MOTOR H-SPEED SW
SFR1 3.3K
TAPE SPEED ADJ.
IC2 (1/2) DN6851
IC1 (1/2) DN6851
AUTO STOP
TAPE TRANSPORT 2ZM3 MK2
I DECK C・B
NO MARK DIODES ARE 1SS132
SIGNAL
MIC/PB:

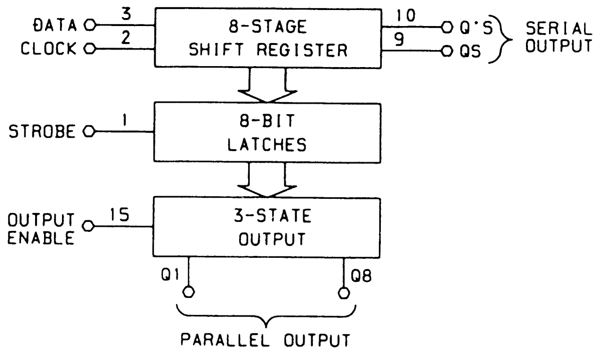
IC BLOCK DIAGRAM – 4

IC, BU4052BCF

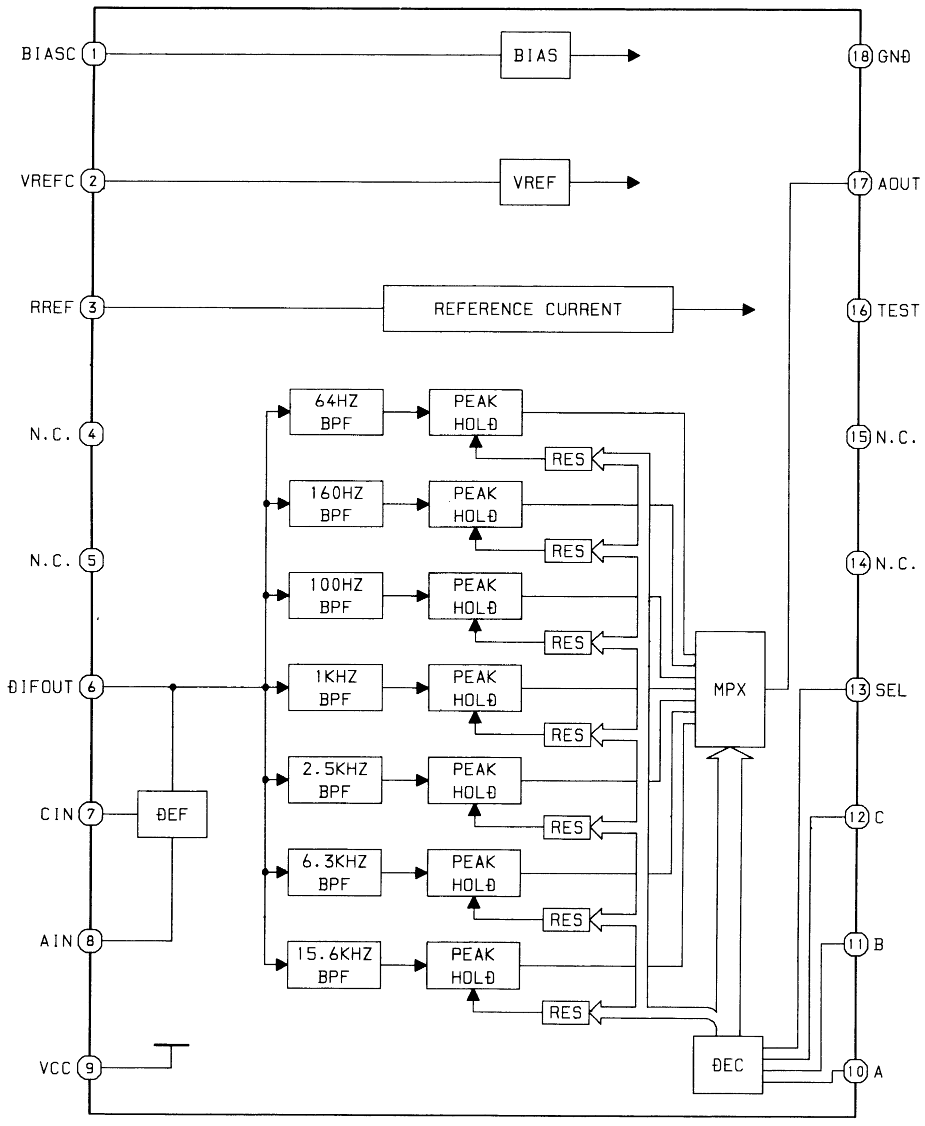

VDD 16
INH 6
A 10
B 9
VSS 8
VEE 7
LEVEL COVER -TER
BINARY TO 1 OF 4 DECODER WITH INHIBIT
X0 12
X1 14
X2 15
X3 11
Y0 1
Y1 5
Y2 2
Y3 4
13
3

TRUTH TABLE

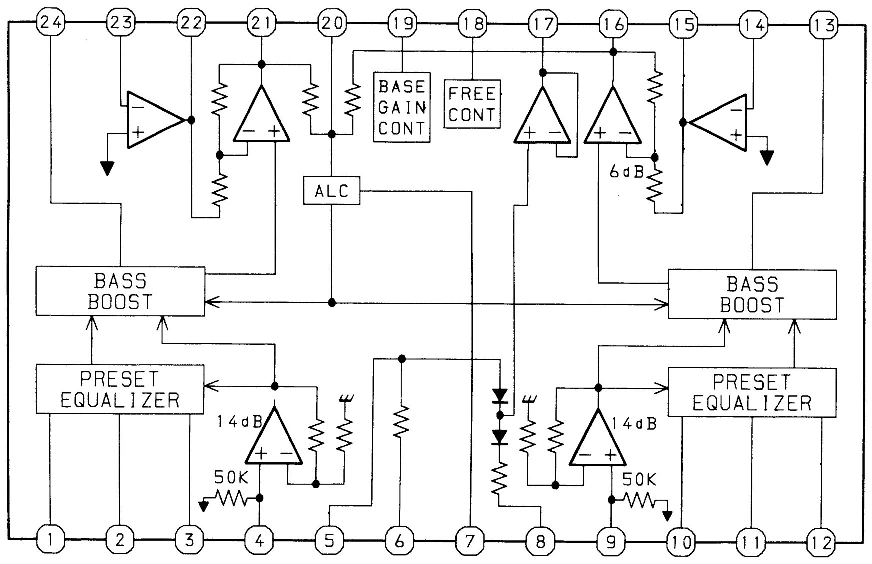
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE


DATA 3
CLOCK 2
8-STAGE SHIFT REGISTER
10 Q'S
9 QS
SERIAL OUTPUT
STROBE 1
8-BIT LATCHES
OUTPUT ENABLE 15
3-STATE OUTPUT
Q1
Q8
PARALLEL OUTPUT

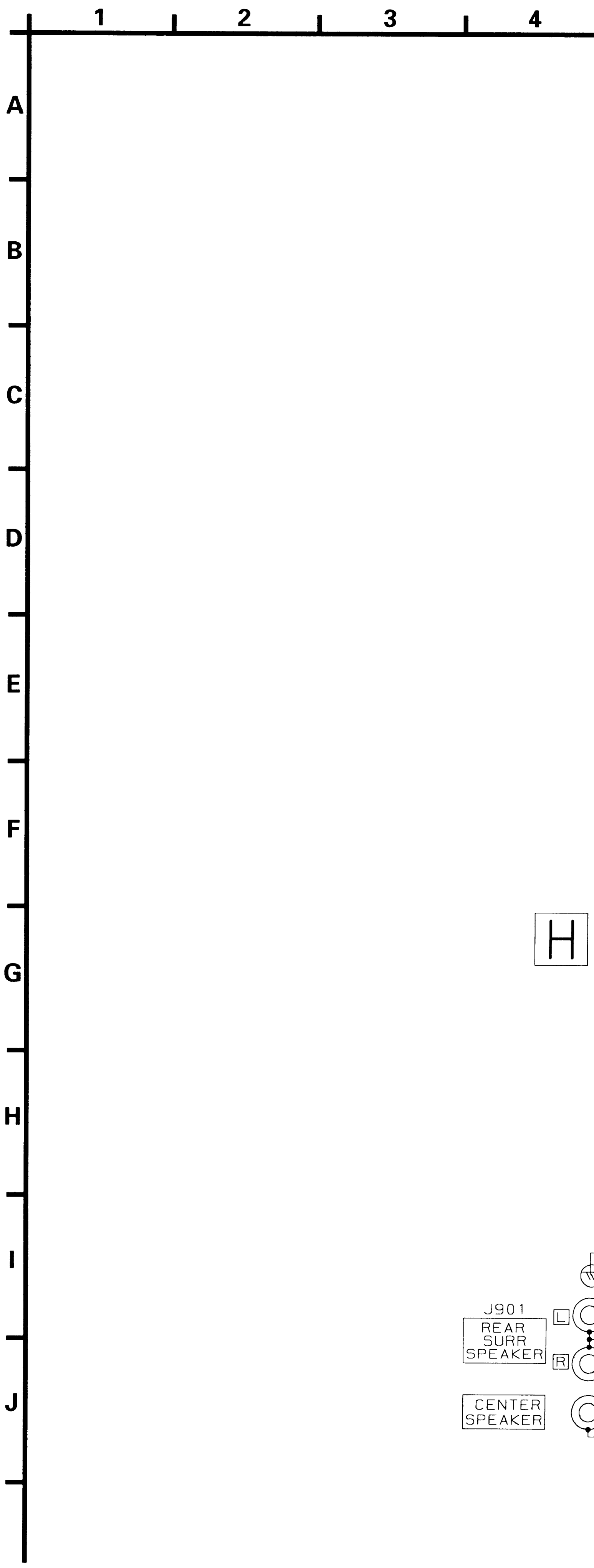
IC, BA3834S


BIASC 1
BIAS
18 GND
VREFC 2
VREF
17 AOUT
RREF 3
REFERENCE CURRENT
16 TEST
N.C. 4
15 N.C.
N.C. 5
14 N.C.
DIFOUT 6
13 SEL
CIN 7
DEF
12 C
AIN 8
11 B
VCC 9
10 A
64HZ BPF
160HZ BPF
100HZ BPF
1KHZ BPF
2.5KHZ BPF
6.3KHZ BPF
15.6KHZ BPF
PEAK HOLD
RES
MPX
DEC

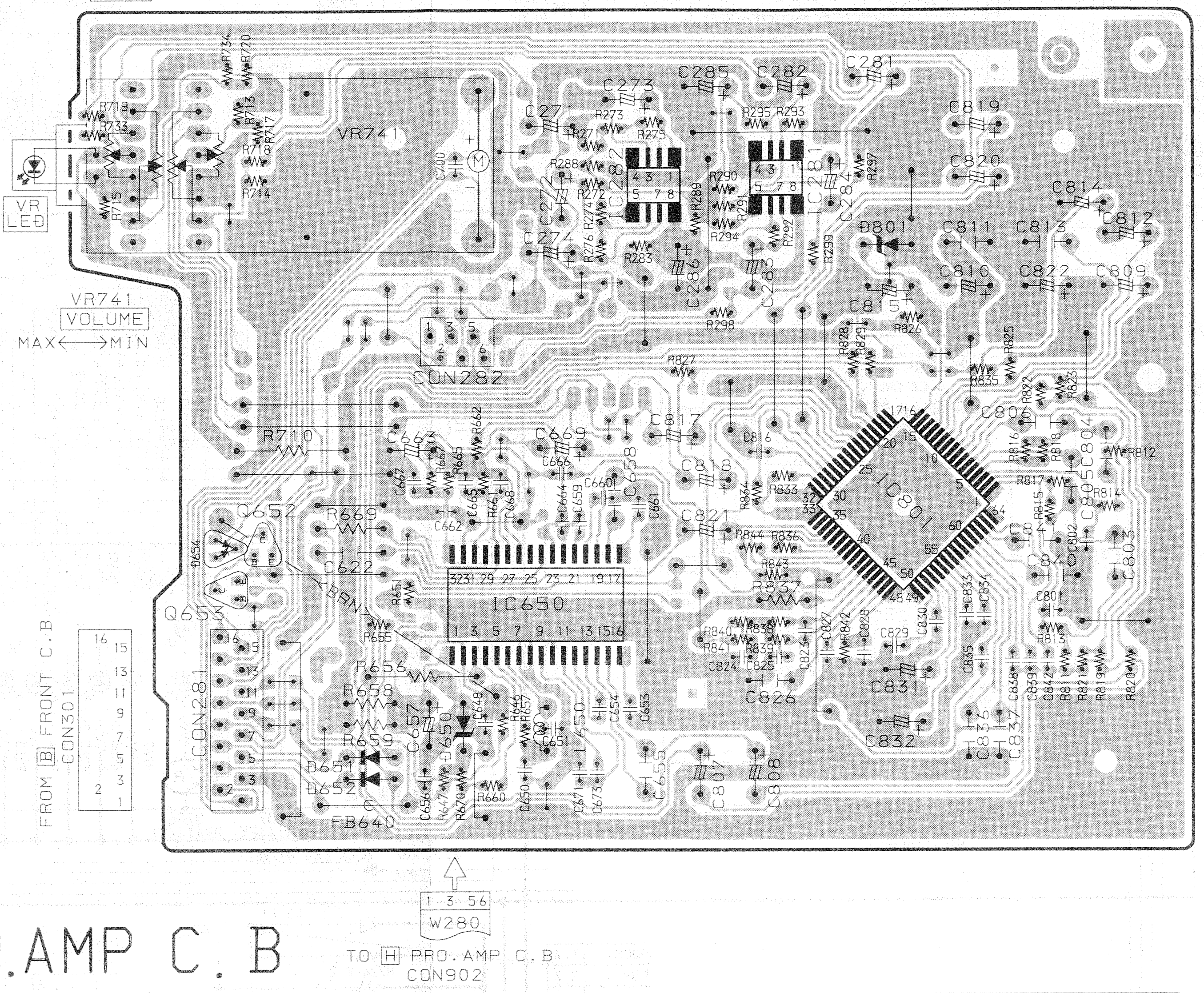
IC, BA3842F


24
23
22
21
20
19
18
17
16
15
14
13
BASE GAIN CONT
FREE CONT
ALC
6dB
BASS BOOST
BASS BOOST
PRESET EQUALIZER
PRESET EQUALIZER
14dB
14dB
50K
50K
1
2
3
4
5
6
7
8
9
10
11
12

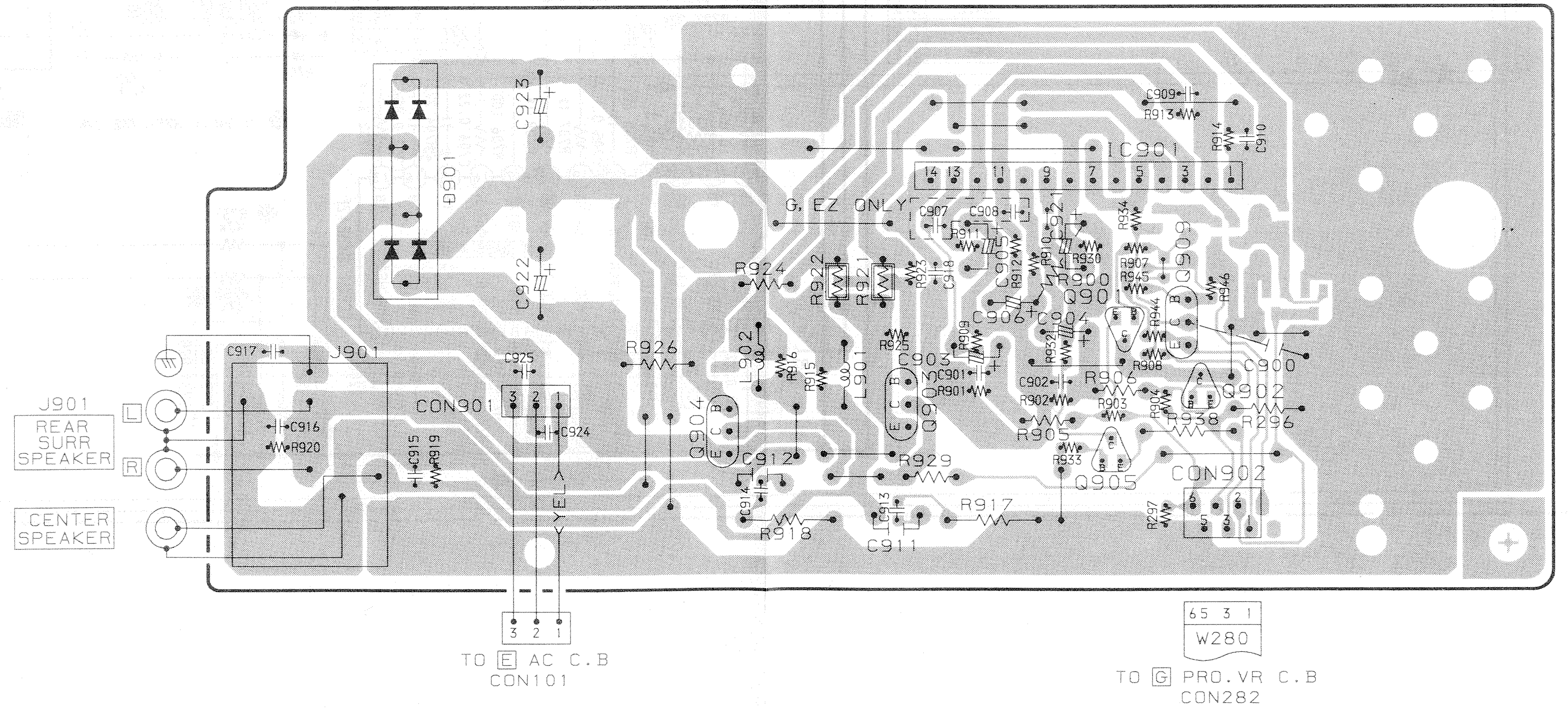
WIRING – 5 (PRO-LOGIC)


1
2
3
4
A
B
C
D
E
F
G
H
I
J
H
J901
REAR SURR SPEAKER
L
R
CENTER SPEAKER

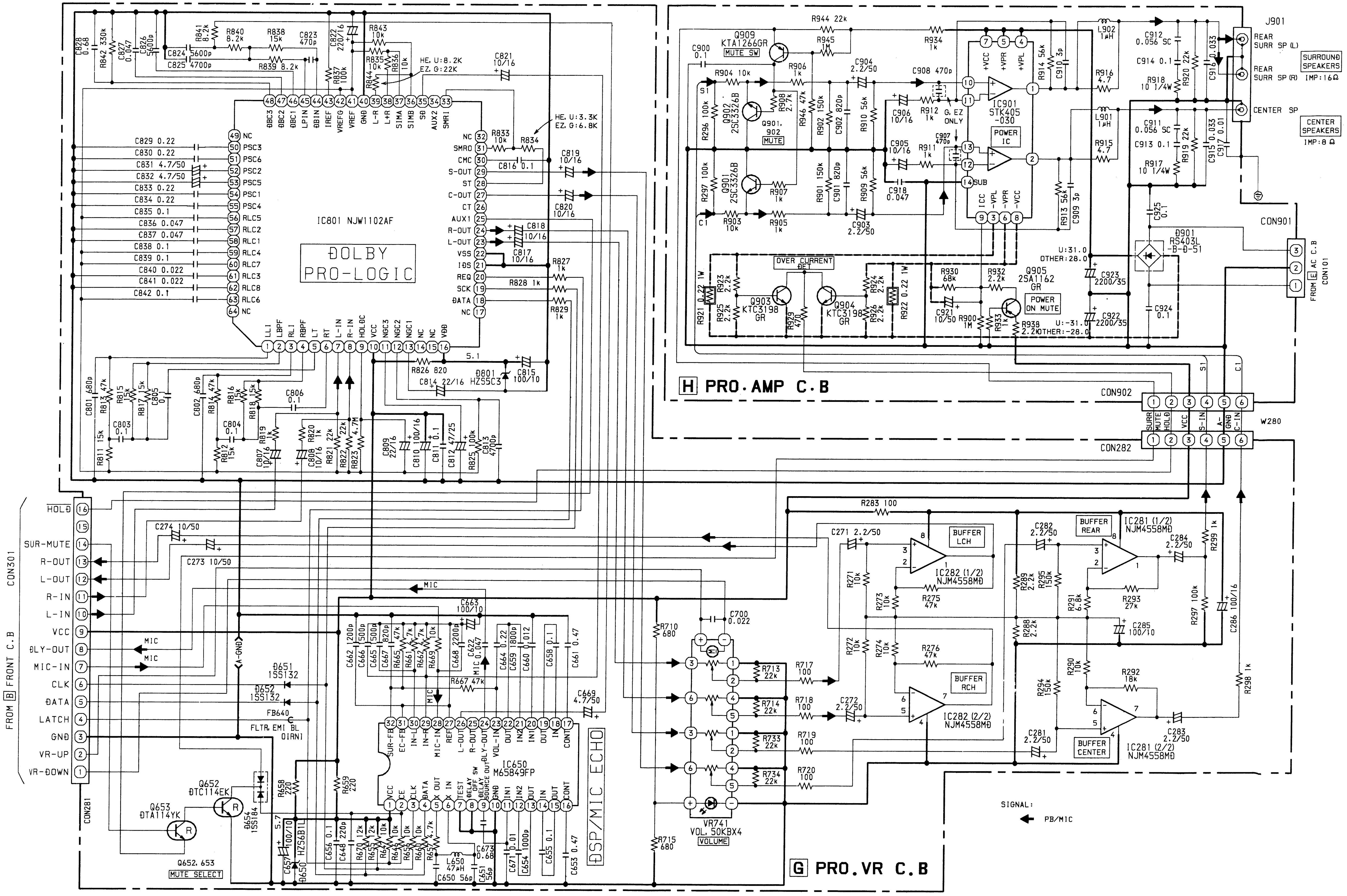
G PRO.VR C.B

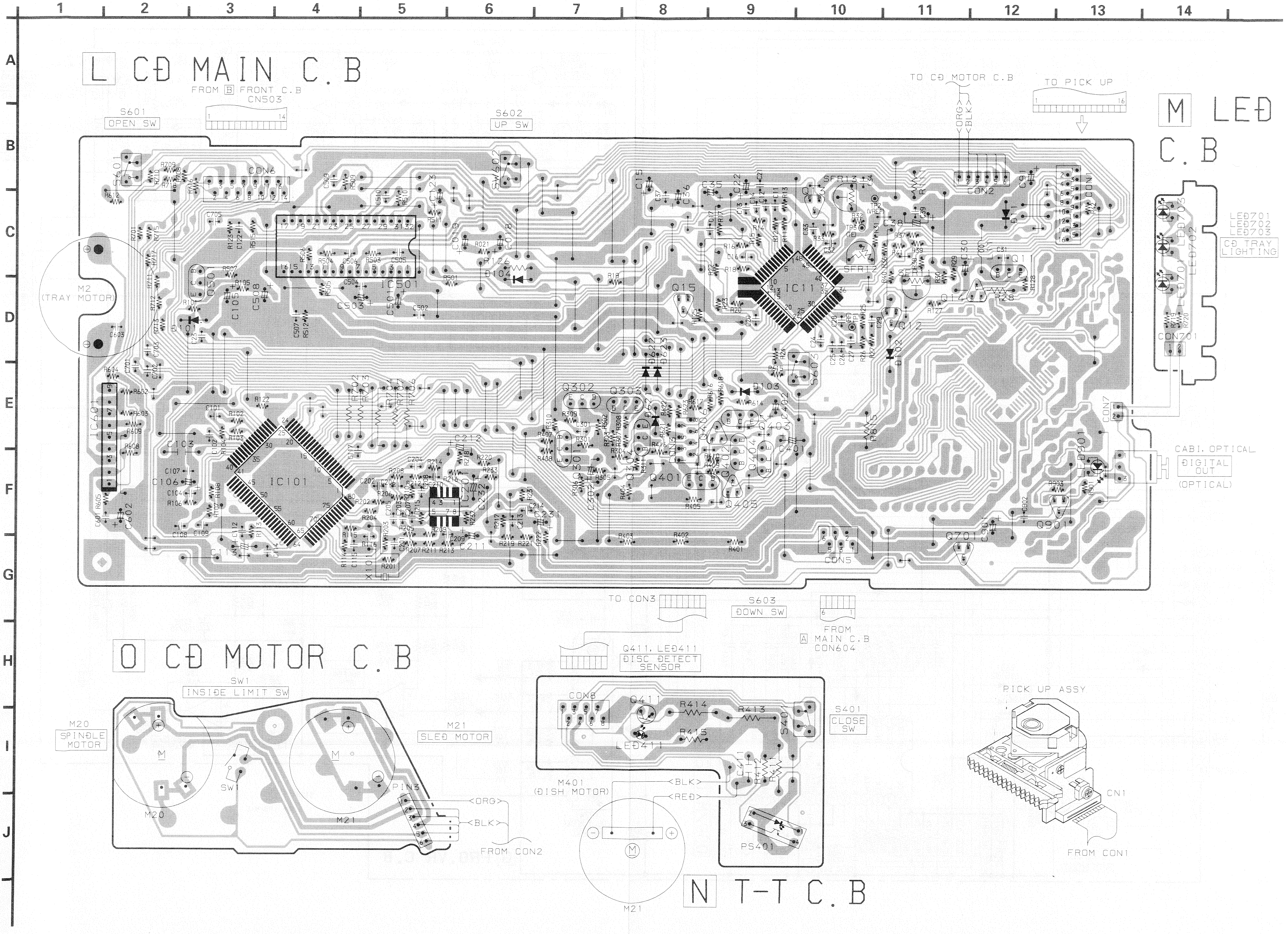

VR LED
VR741
VOLUME
MAX⟵⟶MIN
VR741
C700
C271
C272
C273
C274
C281
C282
C285
C286
C283
C284
C819
C820
C814
C812
C811
C813
C810
C822
C809
C815
D801
IC281
IC280
CON282
R710
Q652
Q653
R669
C622
BRN
IC650
IC801
C817
C818
C821
C666
C658
C660
R656
R658
R659
D651
D652
D650
FB640
C657
L650
C655
C807
C808
C826
C831
C832
C836
C837
C803
C804
C805
C840
CON281
FROM B FRONT C.B
CON301
1 3 5 6
W280
TO H PRO.AMP C.B
CON902

H PRO.AMP C.B


D901
C923
C922
G, EZ ONLY
IC901
C909
R913
R914
C910
C907
C908
C921
C905
C906
C904
Q909
Q900
Q901
R924
R922
R921
R926
L902
L901
C903
Q903
Q904
C912
R929
R917
R918
C911
C913
C914
C900
C902
Q902
R938
R296
R906
R905
Q905
CON902
R297
J901
C917
C925
C916
R920
C915
R919
CON901
C924
YEL
J901
REAR SURR SPEAKER
L
R
CENTER SPEAKER
3 2 1
TO E AC C.B
CON101
6 5 3 1
W280
TO G PRO.VR C.B
CON282

SCHEMATIC DIAGRAM – 5 (PRO-LOGIC)


IC801 NJW1102AF
DOLBY
PRO-LOGIC
IC650
M65849FP
DSP/MIC ECHO
IC901
STK405
-030
POWER
IC
Q909
KTA1266GR
MUTE SW
Q901, 902
MUTE
Q901
2SC3326B
Q902
2SC3326B
OVER CURRENT
DET
Q903
KTC3198
GR
Q904
KTC3198
GR
Q905
2SA1162
GR
POWER
ON MUTE
D901
RS403L
-B-D-51
J901
REAR
SURR SP (L)
REAR
SURR SP (R)
SURROUND
SPEAKERS
IMP:16Ω
CENTER SP
CENTER
SPEAKERS
IMP:8Ω
CON901
FROM E AC C.B
CON101
H PRO.AMP C.B
CON902
W280
CON282
SURR MUTE
HOLD
VCC
S-IN
A-GND
C-IN
BUFFER
LCH
BUFFER
RCH
BUFFER
REAR
BUFFER
CENTER
IC282 (1/2)
NJM4558MD
IC282 (2/2)
NJM4558MD
IC281 (1/2)
NJM4558MD
IC281 (2/2)
NJM4558MD
VR741
VOL. 50KBX4
VOLUME
G PRO.VR C.B
SIGNAL:
PB/MIC
CON301
FROM B FRONT C.B
HOLD
SUR-MUTE
R-OUT
L-OUT
R-IN
L-IN
VCC
DLY-OUT
MIC-IN
CLK
DATA
LATCH
GND
VR-UP
VR-DOWN
CON281
Q652
DTC114EK
Q653
DTA114YK
Q652, 653
MUTE SELECT
D651
1SS132
D652
1SS132
D654
1SS184
FB640
FLTR. EMI BL
01RN1
D650
HZS6B1L
D801
HZS5C3
HE. U:8.2K
EZ. G:22K
HE. U:3.3K
EZ. G:6.8K
G. EZ
ONLY
U:31.0
OTHER:28.0
U:-31.0
OTHER:-28.0
MIC
A-GND


1
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3
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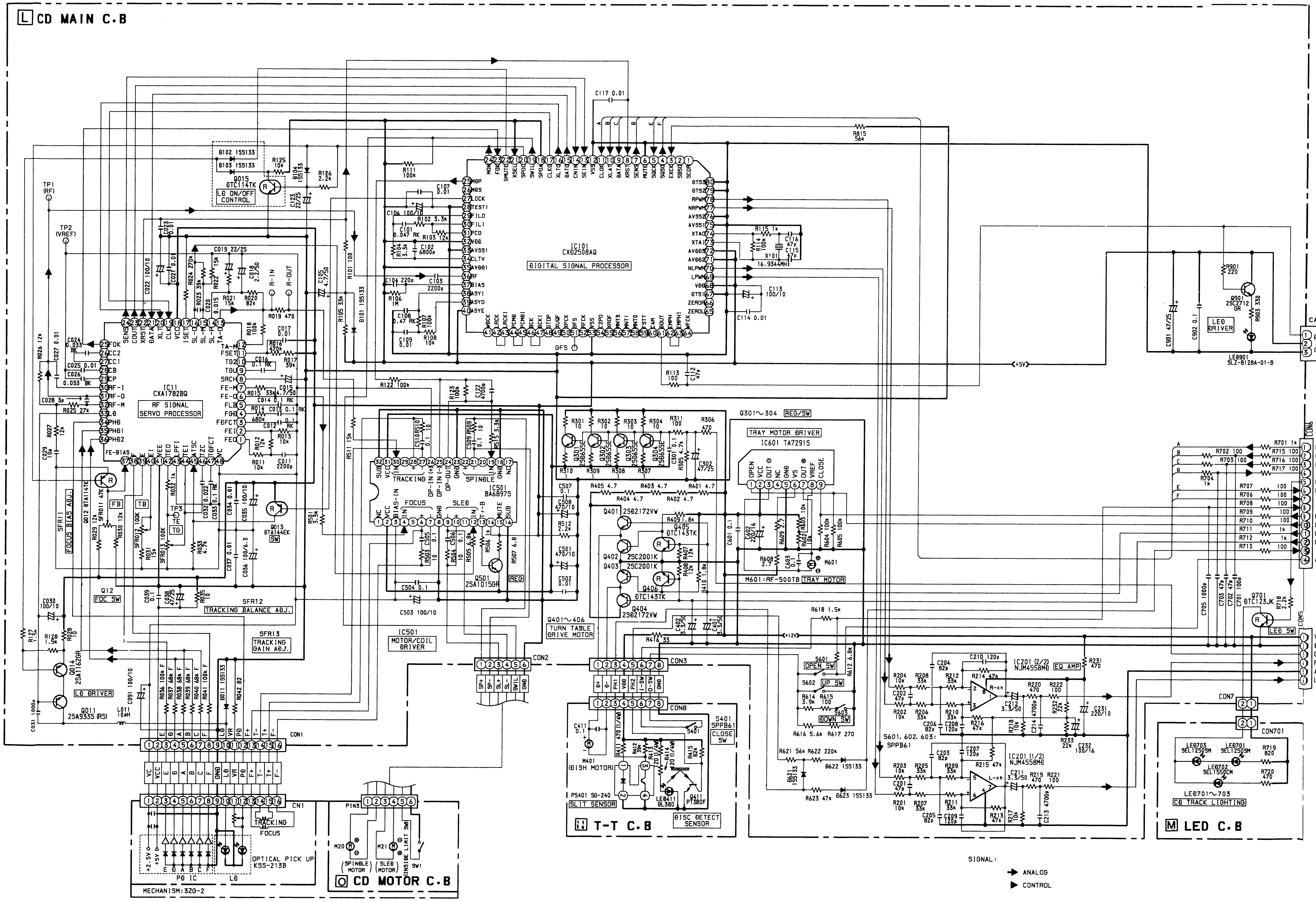
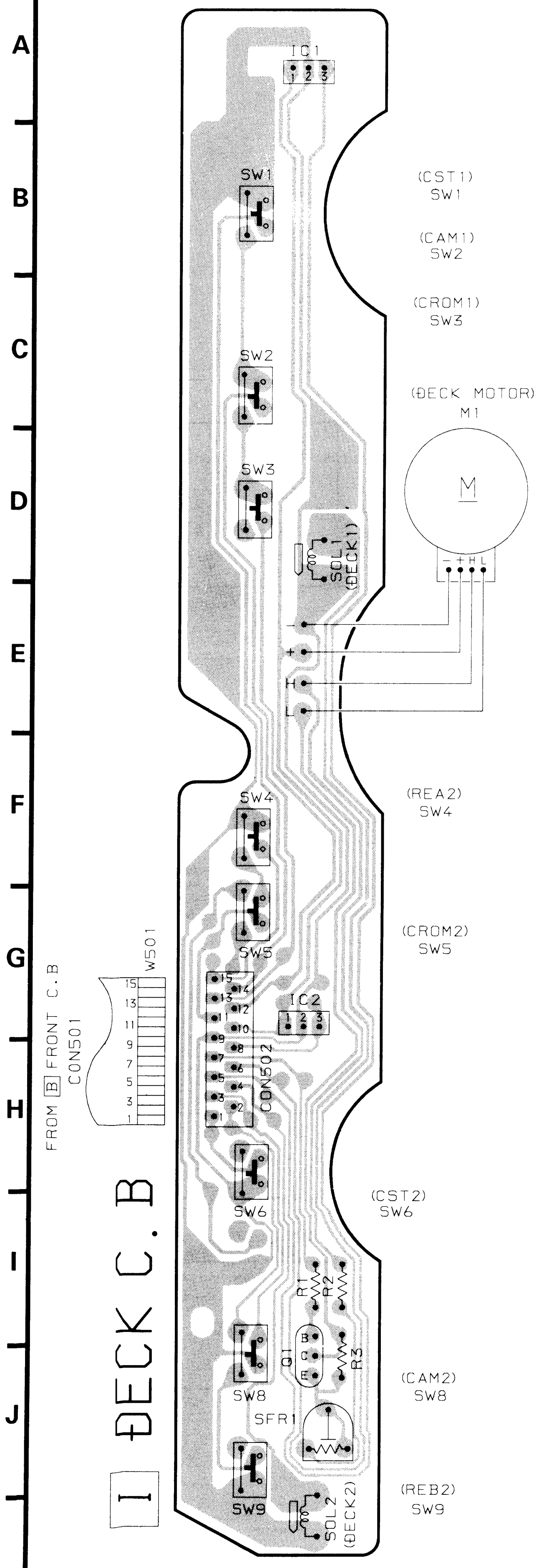
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
L CD MAIN C.B
FROM B FRONT C.B
CN503
S601
OPEN SW
S602
UP SW
TO CD MOTOR C.B
<ORG>
<BLK>
TO PICK UP
M LED C.B
LED701
LED702
LED703
CD TRAY LIGHTING
CON6
CON2
CON1
CON701
CON7
CON5
IC501
IC11
IC101
IC601
Q501
Q15
Q11
Q12
Q13
Q14
Q302
Q303
Q401
Q405
Q701
Q901
D101
D104
D102
D103
SFR11
SFR12
SW602
S603
M2
(TRAY MOTOR)
CABI. OPTICAL
DIGITAL OUT
(OPTICAL)
LED901
X101
TO CON3
S603
DOWN SW
FROM
A MAIN C.B
CON604
Q411, LED411
DISC DETECT SENSOR
O CD MOTOR C.B
SW1
INSIDE LIMIT SW
M20
SPINDLE MOTOR
M21
SLED MOTOR
PIN3
<ORG>
<BLK>
FROM CON2
M20
M21
CON8
Q411
LED411
R414
R413
R415
R412
R411
C411
S401
CLOSE SW
M401
(DISH MOTOR)
<BLK>
<RED>
PS401
M21
N T-T C.B
PICK UP ASSY
CN1
FROM CON1

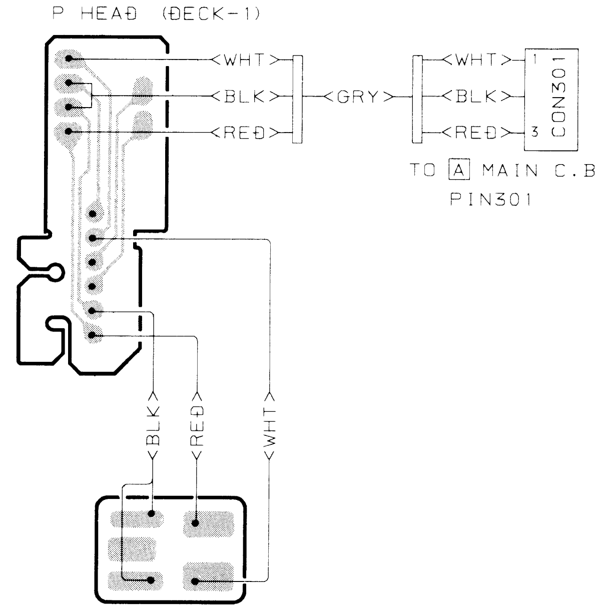
SCHEMATIC DIAGRAM – 6 (CD)


L CD MAIN C.B
IC101 CXD2508AQ DIGITAL SIGNAL PROCESSOR
IC11 CXA1782BQ RF SIGNAL SERVO PROCESSOR
IC501 BA6897S
IC501 MOTOR/COIL DRIVER
IC601 TA7291S TRAY MOTOR DRIVER
Q301~304 REG/SW
Q401~406 TURN TABLE DRIVE MOTOR
Q015 DTC114TK LD ON/OFF CONTROL
Q011 2SA933S (RS)
Q014 2SA1626R
LD DRIVER
Q012 DTA114TK
SFR11 FOCUS BIAS ADJ.
SFR12 TRACKING BALANCE ADJ.
SFR13 TRACKING GAIN ADJ.
Q12 FOC SW
Q013 DTA144EK SW
Q501 2SA1015GR REG
TP1 (RF)
TP2 (VREF)
TP3
X101 16.9344MHz
M601: RF-500TB TRAY MOTOR
IC201 (1/2) NJM4558MD
IC201 (2/2) NJM4558MD EQ AMP
S601 OPEN SW
S602 UP SW
S603 DOWN SW
S601, 602, 603: SPPB61
Q901 2SC2712 GR
LED DRIVER
LE0901 SLZ-8128A-01-B
CABI. OPTICAL
DIGITAL OUT (OPTICAL)
CON6
FROM B FRONT C.B CN503
FROM A MAIN C.B CON604
CON5
Q701 DTC123JK
LED SW
CON7
CON701
LE0701~703 CD TRACK LIGHTING
M LED C.B
CON1
CON2
CON3
CON8
CN1
OPTICAL PICK UP KSS-213B
PD IC
LD
MECHANISM: 3ZG-2
O CD MOTOR C.B
M20 (SPINDLE MOTOR)
M21 (SLED MOTOR)
SW1 INSIDE LIMIT SW
N T-T C.B
M401 (DISH MOTOR)
PS401 SG-240 SLIT SENSOR
S401 SPPB61 CLOSE SW
Q411 PT380F
LE0411 GL380
DISC DETECT SENSOR
SIGNAL:
ANALOG
CONTROL

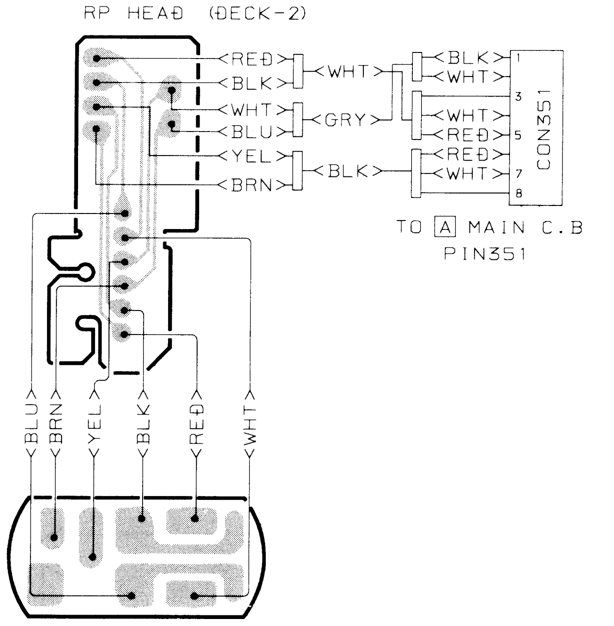

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
IC1
1 2 3
SW1
(CST1)
SW1
(CAM1)
SW2
(CROM1)
SW3
SW2
SW3
(DECK MOTOR)
M1
M
SOL1
(DECK1)
- + H L
-
+
H
L
SW4
(REA2)
SW4
SW5
(CROM2)
SW5
FROM B FRONT C.B
CON501
W501
15
13
11
9
7
5
3
1
CON502
IC2
1 2 3
SW6
(CST2)
SW6
R1
R2
R3
Q1
SW8
(CAM2)
SW8
SFR1
SW9
SOL2
(DECK2)
(REB2)
SW9

I DECK C.B

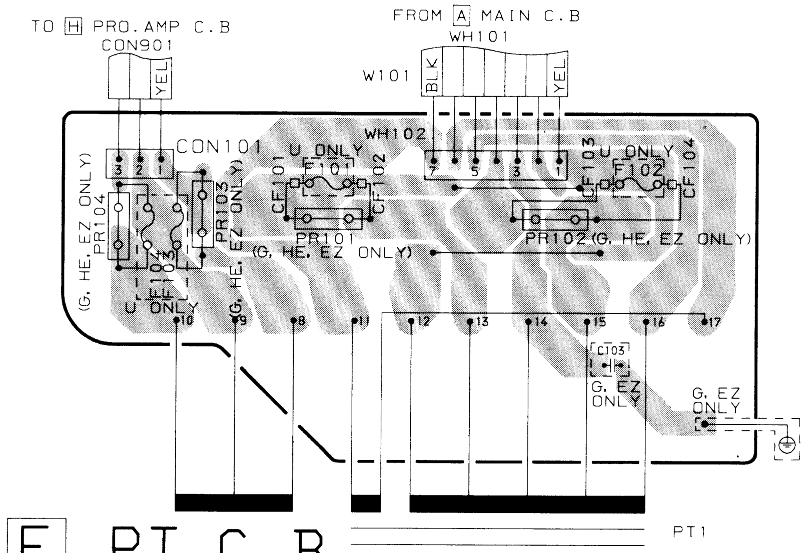
J HEAD-1 C.B


P HEAD (DECK-1)
<WHT>
<BLK>
<RED>
<GRY>
<WHT>
<BLK>
<RED>
1
3
CON301
TO A MAIN C.B
PIN301
<BLK>
<RED>
<WHT>

K HEAD-2 C.B

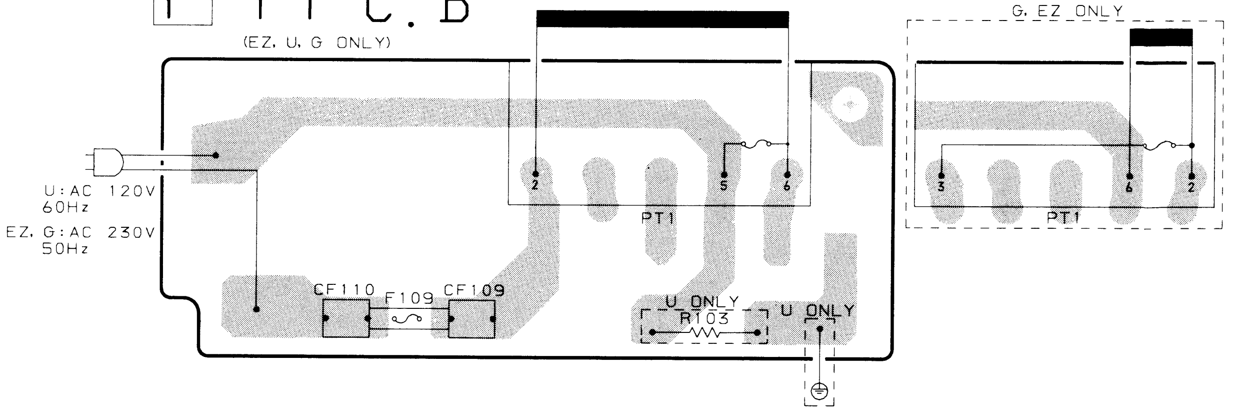

RP HEAD (DECK-2)
<RED>
<BLK>
<WHT>
<BLU>
<YEL>
<BRN>
<WHT>
<GRY>
<BLK>
<BLK>
<WHT>
<WHT>
<RED>
<RED>
<WHT>
1
3
5
7
8
CON351
TO A MAIN C.B
PIN351
<BLU>
<BRN>
<YEL>
<BLK>
<RED>
<WHT>

E AC C.B

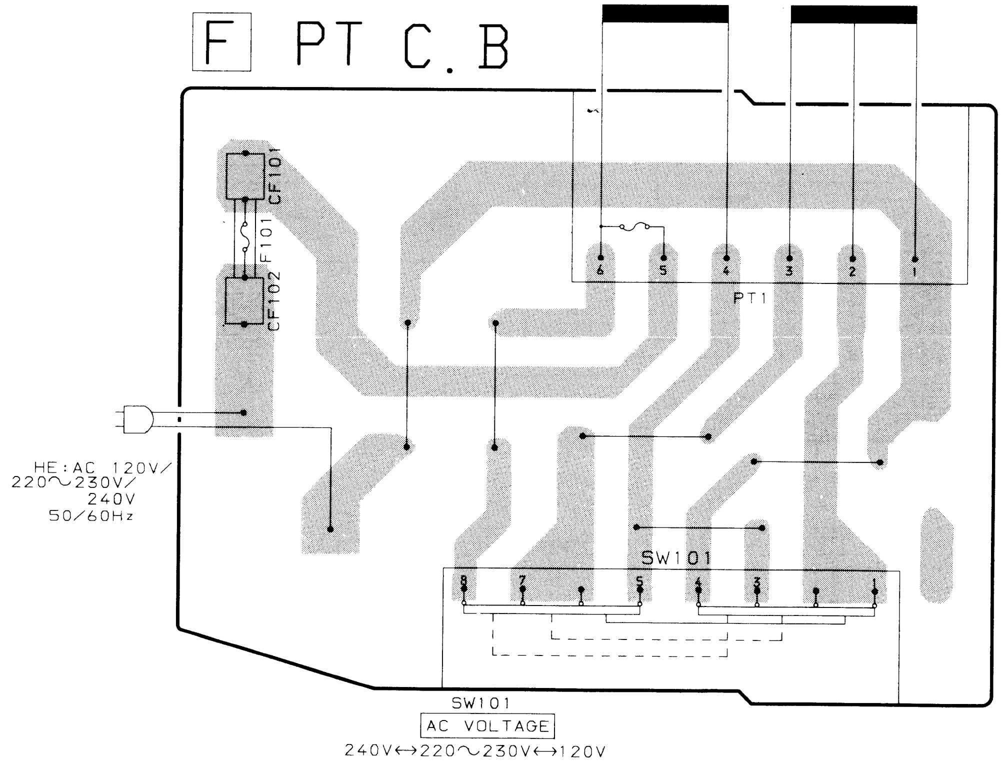

TO H PRO.AMP C.B
CON901
YEL
FROM A MAIN C.B
WH101
W101
BLK
YEL
WH102
7 5 3 1
CON101
3 2 1
(G, HE, EZ ONLY)
PR104
PR103
(G, HE, EZ ONLY)
F103
U ONLY
CF101
U ONLY
F101
CF102
PR101
(G, HE, EZ ONLY)
CF103
U ONLY
F102
CF104
PR102 (G, HE, EZ ONLY)
10
9
8
11
12
13
14
15
16
17
C103
G, EZ ONLY
G, EZ ONLY
PT1

F PT C.B

(EZ, U, G ONLY)

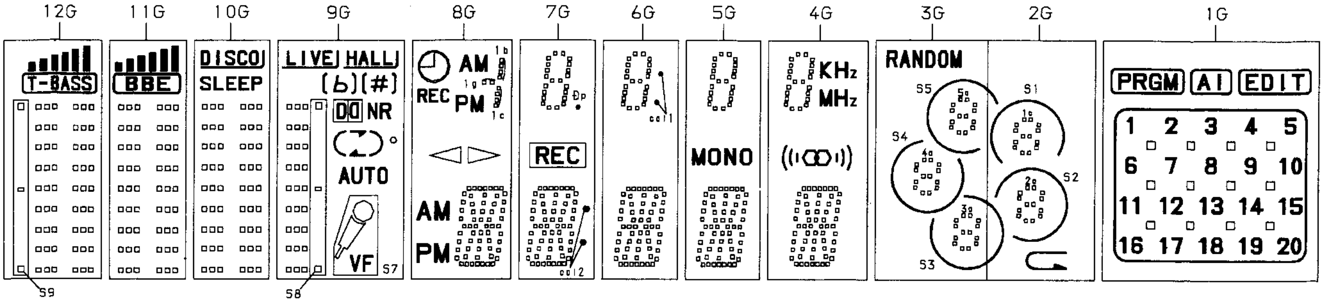

G, EZ ONLY
U: AC 120V 60Hz
EZ, G: AC 230V 50Hz
2
5
6
PT1
3
6
2
PT1
CF110
F109
CF109
U ONLY
R103
U ONLY

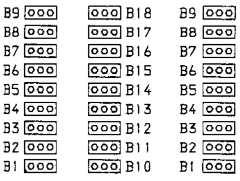
F PT C.B


CF101
F101
CF102
6
5
4
3
2
1
PT1
HE: AC 120V/
220～230V/
240V
50/60Hz
SW101
SW101
AC VOLTAGE
240V↔220～230V↔120V

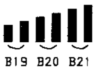
FL GRID ASSIGNMENT & ANODE CONNECTION

FL,29U56100BA
GRID ASSIGNMENT

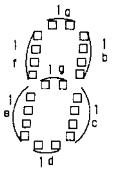

12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
T-BASS
BBE
DISCO
SLEEP
LIVE HALL
(b)(#)
DD NR
AUTO
VF
S7
S8
S9
AM
PM
REC
AM
PM
REC
MONO
KHz
MHz
RANDOM
S5
S4
S1
S2
S3
PRGM
AI
EDIT
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20


B9
B8
B7
B6
B5
B4
B3
B2
B1
B18
B17
B16
B15
B14
B13
B12
B11
B10

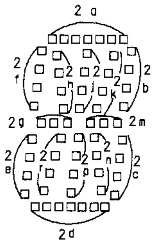
[12G ~ 10G]　[9G]



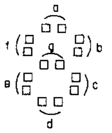
[12G, 11G]


1a
1b
1c
1d
1e
1f
1g

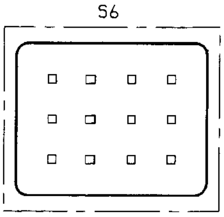
[7G ~ 4G]


2a
2b
2c
2d
2e
2f
2g
2m

[8G ~ 4G]



[3G, 2G]



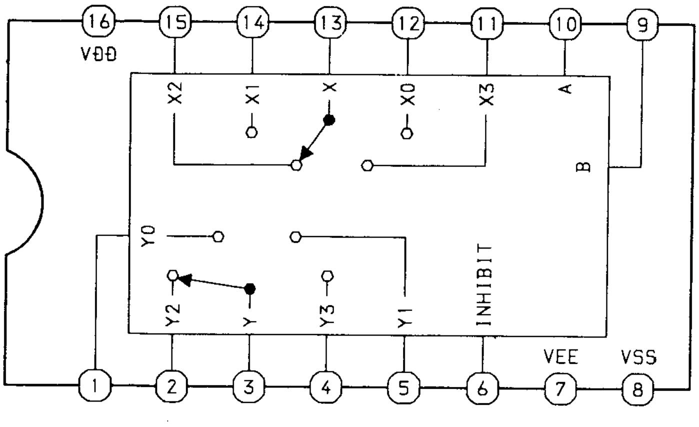
[1G]

ANODE CONNECTION

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	S7	2d	2d	2d	2d	2d	S3		**20**
P2	B1	B1	B1	B1	2j, 2p	2j, 2p	2j, 2p	2j, 2p	2j, 2p	3a,3d	↪	**19**
P3	B11	B11	B11	⇄ S8	2n	2n	2n	2n	2n	3e	—	**18**
P4	B2	B2	B2	B2	2r	2r	2r	2r	2r	3c		**17**
P5	B12	B12	B12	**AUTO**	2c	2c	2c	2c	2c	3g	—	**16**
P6	B3	B3	B3	B3	2e	2e	2e	2e	2e	3f	—	**15**
P7	B13	B13	B13	(	2m	2m	2m	2m	2m	3d		**14**
P8	B4	B4	B4	B4	2g	2g	2g	2g	2g	3a,3d	2a,2d	**13**
P9	B5	B5	B5	B5	2f	2f	2f	2f	2f	4e	2e	**12**
P10	B15	B15	B15	)	2b	2b	2b	2b	2b	4c	2c	**11**
P11	B6	B6	B6	B6	2k	2k	2k	2k	2k	4g	2g	**10**
P12	B16	B16	B16	○	2h	2h	2h	2h	2h	4f	2f	**9**
P13	B7	B7	B7	B7	2a	2a	2a	2a	2a	4b	2b	**8**
P14	B14	B14	B14	**DD NR**	**PM** (DN)	col 2		—	**(((◎)))**	S4	S2	**7**
P15	B17	B17	B17	*b #*	**AM** (DN)	**REC**	**col** (UP)	—	**MHz**	S5		**6**
P16	B8	B8	B8	B8	▷	Đp	**col** (DN)	**MONO**	**KHz**	S1		**5**
P17	B18	B18	B18	([b])	◁	1d	1d	1d	1d	5a,5d	1a,1d	**4**
P18	B9	B9	B9	B9	**REC**	1e	1e	1e	1e	5e	1e	**3**
P19	B19	B19	**SLEEP**	([#])	**PM** (UP)	1c	1c	1c	1c	5c	1c	**2**
P20	B20	B20	**DISCO**	**HALL**	1g	1g	1g	1g	1g	5g	1g	**1**
P21	B21	B21	[ĐISCO]	[HALL]	1b, 1c	1f	1f	1f	1f	5f	1f	**EDIT**
P22	**T-BASS**	**BBE**	[LIVE]		◷	1b	1b	1b	1b	5b	1b	**AI**
P23	—	—	**LIVE**		**AM** (UP)	1a	1a	1a	1a	**RANDOM**		**PRGM**
P24	S9	—	—	—	—	—	—	—	—	—	—	S6

IC BLOCK DIAGRAM – 5

IC, TC4052BP

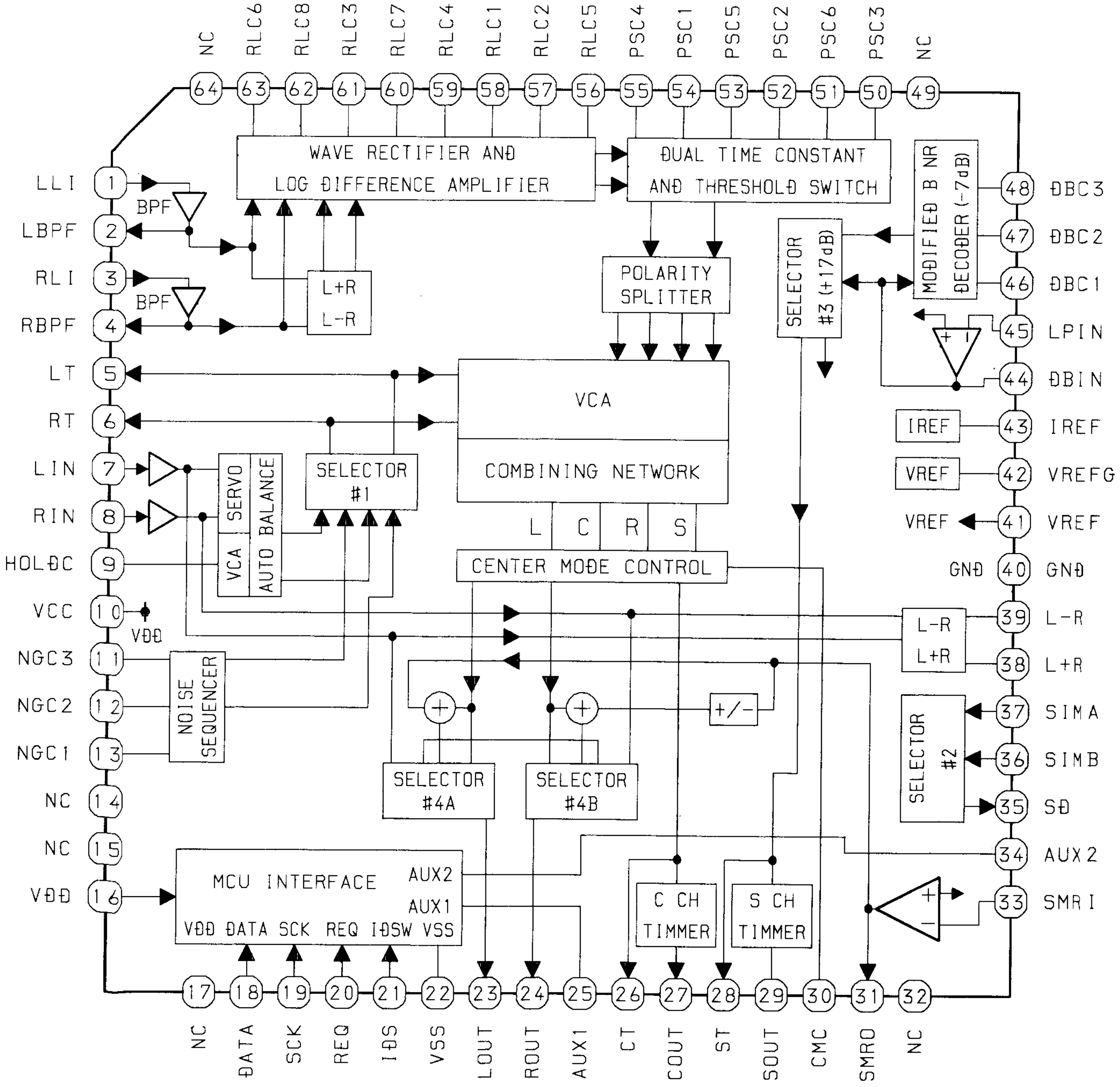

16
15
14
13
12
11
10
9
VDD
X2
X1
X
X0
X3
A
B
Y0
Y2
Y
Y3
Y1
INHIBIT
VEE
VSS
1
2
3
4
5
6
7
8

TRUTH TABLE

CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A		
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	–	–

L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

IC, NJW1102AF61


NC
RLC6
RLC8
RLC3
RLC7
RLC4
RLC1
RLC2
RLC5
PSC4
PSC1
PSC5
PSC2
PSC6
PSC3
NC
64
63
62
61
60
59
58
57
56
55
54
53
52
51
50
49
WAVE RECTIFIER AND
LOG DIFFERENCE AMPLIFIER
DUAL TIME CONSTANT
AND THRESHOLD SWITCH
MODIFIED B NR
DECODER (-7dB)
SELECTOR
#3 (+17dB)
POLARITY
SPLITTER
L+R
L-R
BPF
BPF
VCA
COMBINING NETWORK
L
C
R
S
CENTER MODE CONTROL
SELECTOR
#1
SERVO
VCA
AUTO BALANCE
NOISE
SEQUENCER
SELECTOR
#4A
SELECTOR
#4B
+/-
SELECTOR
#2
IREF
VREF
VREF
L-R
L+R
MCU INTERFACE
AUX2
AUX1
VDD DATA SCK REQ IDSW VSS
C CH
TIMMER
S CH
TIMMER
1 LLI
2 LBPF
3 RLI
4 RBPF
5 LT
6 RT
7 LIN
8 RIN
9 HOLDC
10 VCC
VDD
11 NGC3
12 NGC2
13 NGC1
14 NC
15 NC
16 VDD
48 DBC3
47 DBC2
46 DBC1
45 LPIN
44 DBIN
43 IREF
42 VREFG
41 VREF
40 GND
39 L-R
38 L+R
37 SIMA
36 SIMB
35 SD
34 AUX2
33 SMRI
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
NC
DATA
SCK
REQ
IDS
VSS
LOUT
ROUT
AUX1
CT
COUT
ST
SOUT
CMC
SMRO
NC
GND

IC DESCRIPTION

IC, CXA1782BQ

Pin No.	Pin Name	I/O	Description
1	FEO	O	Focus error amplifier output pin. This pin is connected to the FZC comparator input internally.
2	FEI	I	Focus error input pin.
3	FDFCT	I	Capacitor connection pin for time constant used when there is defect.
4	FGD	I	Corrects the focus servo high frequency gain.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequeny gain of the focus servo.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TAM	I	Tracking amplifier inverted input pin.
13	TAO	O	Tracking drive output.
14	SLP	I	Sled amplifier non-inverted input pin.
15	SLM	I	Sled amplifier inverted input pin.
16	SLO	O	Sled drove output.
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input.
18	VCC	-	+5V power supply pin.
19	CLK	I	Serial data transfer clock input from CPU (CXD2518Q).
20	XLT	I	Latch input from CPU (CXD2518Q).
21	DATA	I	Serial data input from CPU (CXD2518Q).
22	XRST	I	Reset input pin. Reset at L.
23	COUT	O	Signal output to count the number of tracks.
24	SENS	O	FZC, DFCT, TZC, Gain or BAL is output depending on the command to CPU (CXD2518Q).
25	FOK	O	Output pin of the focus OK comparator.
26	CC2	O	Input pin where the DEFECT bottom hold output is capacitance coupled.
27	CC1	I	DEFECT bottom hold output pin.
28	CB	I	This is a pin where the DEFECT bottom hold capacitor is connected.
29	CP	I	This is a pin where the MIRR hold capacitor is connected and MIRR comparator non-inverted signal is input.
30	RFI	I	Input pin where the RF summing amplifier output is capacitance coupled.
31	RFO	O	RF summing amplifier output pin. (TP1)
32	RFM	I	RF summing amplifier inverted input pin. Gain of RF amplifier is determined by the resistor connected between RFO and this pin.

Pin No.	Pin Name	I/O	Description
33	LD	O	APC amplifier output pin.
34	PHD	I	APC amplifier input pin.
35~36	PHD1~2	I	RF I-V amplifier inverted input pin. These pins are connected to the A+C and B+D pins of the optical pickup.
37	BIAS	I	Bias adjustment pin of the non-inverted side of the focus error amplifier.
38~39	F-E	I	F and E IV amplifier non-inverted input pins. These pins are connected to the F and E of the optical pickup.
40	EI	-	Gain adjustment pin of the I-V amplifier E.
41	VEE	-	GND connection pin.
42	TEO	O	Tracking error amplifier output pin.
43	LPFI	I	BAL adjustment comparator input pin.
44	TEI	I	Tracking error input pin.
45	ATSC	I	Window comparator input pin for detecting ATSC.
46	TZC	I	Tracking zero-cross comparator imput pin.
47	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
48	VC	O	DC voltage output pin of VREF. (VDD/2)

IC, CXD2508AQ

Pin No.	Pin Name	I/O	Description
1	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected.
2	SBSO	O	Sub P to W serial output.
3	EXCK	I	SBSO readout clock input.
4	SQSO	O	Sub Q 80-bit serial output.
5	SQCK	I	SQSO readout clock input.
6	MUTE	I	High: mute; low: release.
7	SENS	O	SENS output to CPU.
8	XRST	I	System reset. Reset when low.
9	DATA	I	Serial data input from CPU.
10	XLAT	I	Latch input from CPU. Serial data is latched at the falling edge.
11	CLOK	I	Serial data transfer clock input from CPU.
12	VSS	–	GND.
13	SEIN	I	Sense input from SSP.
14	CNIN	I	Track jump count signal input.
15	DATO	O	Serial data output to SSP.
16	XLTO	O	Serial data latch output to SSP. Latched at the falling edge.
17	CLKO	O	Serial data transfer clock output to SSP.
18	SPOA	I	Microcomputer extended interface (input A).
19	SPOB	I	Microcomputer extended interface (input B).
20	SPOC	I	Microcomputer extended interface (input C).
21	XTSL	I	Crystal selection input. Low for 16.9344MHz; high for 33.8688MHz.
22	XLON	O	Microcomputer extended interface (output).
23	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.

Pin No.	Pin Name	I/O	Description
24	MON	O	Spindle motor on/off control output.
25	MDP	O	Spindle motor servo control.
26	MDS	O	Spindle motor servo control.
27	LOCK	O	GFS is sampled at 460Hz; when GFS is high, this pin outputs a high signal. If GFS is low eight consecutive samples, this pin outputs low.
28	TEST	I	TEST pin. Normally GND.
29	FILO	O	Master PLL (slave=digital PLL) filter output.
30	FILI	I	Master PLL filter input.
31	PCO	O	Master PLL charge pump output.
32	VDD	-	Digital power supply for DSP.
33	AVSS1	-	Analog GND for DSP.
34	CLTV	I	Master PLL VCO control voltage input.
35	AVDD1	-	Analog power supply for DSP.
36	RF	I	EFM signal input.
37	BIAS	I	Constant current input of asymmetry compensation circuit.
38	ASYI	I	Comparator voltage input of asymmetry compensation circuit.
39	ASYO	O	EFM full-swing output (low=VSS, high=VDD).
40	ASYE	I	Low: asymmetry compensation off; high: asymmetry compensation on.
41	WDCK	O	D/A interface for 48-bit slot. Word clock (2Fs).
42	LRCK	O	D/A interface for 48-bit slot. LR clock (Fs).
43	LRCKI	I	LR clock input for DAC. (48-bit slot)
44	PCMD	O	D/A interface. Serial data (two's complement, MSB first).
45	PCMDI	I	Audio data input for DAC. (48-bit slot)
46	BCK	O	D/A interface. Bit clock.
47	BCKI	I	Bit clock input for DAC. (48-bit slot)
48	GTOP	O	CTOP output.
49	XUGF	O	XUGF output.
50	XPCK	O	XPLCK output.
51	GFS	O	GFS output.
52	RFCK	O	RFCK output.
53	VSS	-	GND.
54	C2PO	O	C2PO output.
55	XROF	O	ARAOF output.
56	MNT3	O	MNT3 output.
57	MNT1	O	MNT1 output.
58	MNT0	O	MNT0 output.
59	FSTT	O	2/3 frequency-divider output for Pins 73 and 74.
60	C4M	O	4.2336MHz output.
61	DOUT	O	Digital Out output.
62	EMPH	O	Outputs high signal when the playback disc has emphasis, low signal when no emphasis.
63	EMPHI	I	DAC de-emphasis on/off. High: on; low: off.

Pin No.	Pin Name	I/O	Description
64	WFCK	O	WFCK (write frame clock) output.
65	ZEROL	O	No-sound data detection output; high when no sound data is detected. (Left channel)
66	ZEROR	O	No-sound data detection output; high when no sound data is detected. (Right channel)
67	DTS1	I	Test pin 1 for DAC; normally low.
68	VDD	-	Digital power supply for DAC.
69	NLPWM	O	Left channel PWM output. (Reverse phase)
70	LPWM	O	Left channel PWM output. (Forward phase)
71	AVDD2	-	Power supply for left channel PWM driver.
72	AVDD3	-	Power supply for crystal.
73	XTAI	I	33.8688MHz crystal oscillation circuit input.
74	XTAO	O	33.8688MHz crystal oscillation circuit output.
75	AVSS3	-	GND for crystal.
76	AVSS2	-	GND for PWM driver.
77	NRPWM	O	Right channel PWM output. (Reverse phase)
78	RPWM	O	Right channel PWM output. (Forward phase)
79	DTS2	I	DAC test pin 2; normally low.
80	DTS3	I	DAC test pin 3; normally low.

IC, LC72131

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XIN</td><td rowspan="2">I/O</td><td rowspan="2">A crystal oscillator (7.2MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>XOUT</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (LC866432V-5A45) when relevant key is operated. Active "H".</td></tr>
<tr><td>5</td><td>CLK</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (LC866432V-5A45).</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when MONO / BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / AM</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IFIN</td><td>I</td><td>General purpose counter input.</td></tr>
</table>

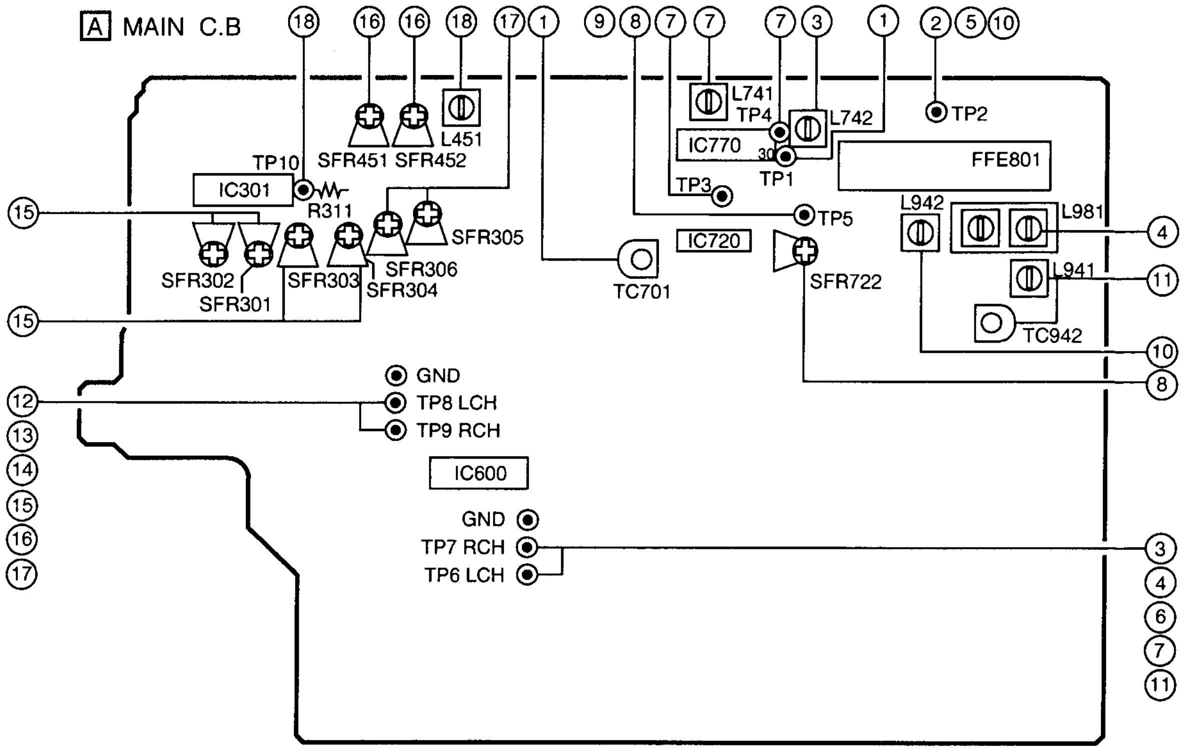
Pin No.	Pin Name	I/O	Description
13	$\overline{\text{TUNE}}$	I	Receives "L" when station is tuned.
14	NC	–	Not used.
15	A MIN	I	Receives the AM local oscillator frequency signal.
16	F MIN	I	Receives the FM local oscillator frequency signal.
17	VDD	–	Supply power to IC (+5V).
18	PD	O	PLL charge pump output.
19	AIN	I	The MOS transistor for PLL active low pass filter.
20	AOUT	O	
21	VSS	–	Ground.

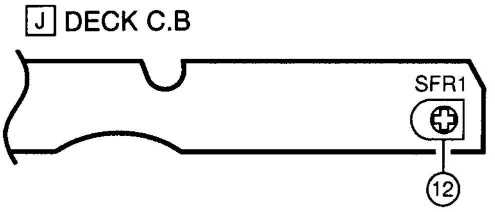
IC, LC866440W-5B29

Pin No.	Pin Name	I/O	Description
1	DI/R	O	CD turntable reverse rotation output.
2	DI/F	O	CD turntable forward rotation output.
3	O-M/STB	O	Main shift register data latch strobe output.
4	O-M/DATA	O	Main shift register/PLL/DSP related data output.
5	O-M/CLK	O	Main shift registerPLL/DSP related data transfer clock output.
6	CLK-SHIFT	O	Micon clock shift output (active low).
7	$\overline{\text{RESET}}$	I	Reset input.
8	I-$\overline{\text{HOLD}}$	I	Power failure detect input (Hold at 'L') P74 input data is 1 at 'L' level.
9	I-$\overline{\text{TUNE}}$/IFC	I	Tuner $\overline{\text{SD}}$ detected input. IF count serial data input.
10	VSS1	-	GND terminal.
11,12	CF1, 2	I/O	5.76 MHz oscillator circuit.
13	VDD1	-	Power supply input.
14~16	I-KEY1 - 3	I	Key input. (A/D)
17	I-CD/SW	I	CD mechanical switch A/D converter input.
18	I-CD/DISH	I	CD turntable photo sensor A/D converter input.
19	I-MS	I	Deck music sensor signal input.
20	I-SPEANA	I	A/D input for spectrum analyzer display.
21	I-MIC	I	Microphone level A/D input for auto vocal fader.
22	I-TM BASE	I	DSP data latch strobe output.
23	I-$\overline{\text{CD}}$ SENSE I-$\overline{\text{STEREO}}$	I	Watch reference clock input (8/50/60 Hz automatic supported).
24	I-$\overline{\text{RMC}}$	I	System remote control signal input (active low).
25~36	G12~G1	O	FL grid output G12~G1.
37	P23	O	FL segment output P23.
38	P22	O	FL segment output P22.
39	P21	O	FL segment output P21/spectrum analyzer band select output (A).
40	P20	O	FL segment output P20/spectrum analyzer hand select output (B).
41	VDD2	-	Power supply input.
42	-VP	-	Power supply input for FL display.
43	P19	O	FL segment output P19/spectrum analyzer band select output (C).

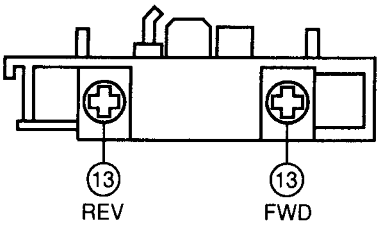
Pin No.	Pin Name	I/O	Description
44	P18/$\overline{\text{CST1}}$	I/O	FL segment output P18/DECK1 cassette detect switch data input.
45	P17/$\overline{\text{AUTO1}}$	I/O	FL segment output P17/DECK1 auto stop signal input.
46	P16/$\overline{\text{CAM1}}$	I/O	FL segment output P16/DECK1 cam switch data input.
47	P15/$\overline{\text{CAM2}}$	I/O	FL segment output P15/DECK2 cam switch data input.
48	P14/$\overline{\text{AUTO2}}$	I/O	FL segment output P14/DECK2 auto stop signal input.
49	P13/$\overline{\text{CST2}}$	I/O	FL segment output P13/DECK2 cassette detect switch data input.
50	P12/$\overline{\text{REA}}$	I/O	FL segment output P12/DECK2 side-A record OK switch data input.
51	P11/$\overline{\text{REB}}$	I/O	FL segment output P11/DECK2 side-B record OK switch data input.
52	P10/FM·WIDE	O	FL segment output P10.
53	P1/AM·ST	O	FL segment output P1.
54	P2/AM10K	O	FL segment output P2.
55	P3/LW	O	FL segment output P3.
56	P4/PRO-LOGIC	I/O	FL segment output P4/HP jack switch input.
57	P5	O	FL segment output P5.
58	P6	O	FL segment output P6.
59	P7/KCON	O	FL segment output P7.
60	P8/LH	O	FL segment output P8.
61	P9	O	FL segment output P9.
62	O-PLLCE	O	PLL IC chip enable output.
63	O-$\overline{\text{OPEN}}$	O	CD tray open data output.
64	O-$\overline{\text{CLOSE}}$	O	CD tray close data output.
65	O-$\overline{\text{POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
66	O-$\overline{\text{SOL1}}$	O	DECK1 plunger $\overline{\text{ON}}$/OFF output.
67	O-$\overline{\text{SOL2}}$	O	DECK2 plunger $\overline{\text{ON}}$/OFF output.
68	O-$\overline{\text{MOTOR}}$	O	DECK motor $\overline{\text{ON}}$/OFF output.
69	O-$\overline{\text{KEY·SCAN}}$	O	Segment input enable output (active low).
70	O-F/STB	O	Front shift register data latch strobe output.
71	O-F/CLK	O	Front shift register data transfer clock output.
72	O-F/DATA	O	Front shift register data output.
73	VSS2	-	GND terminal.
74	O-CD/DATA	O	CD IC control data output.
75	O-CD/XLT	O	CD IC control data latch output.
76	O-CD/CLK	O	CD IC control data transfer clock output.
77	O-DSPCE	O	DSP data latch strobe output.
78	I-CD·SQ DATA	I	CD SUB-Q data input.
79	O-CD·SQ CLK	O	Clock output for CD SUB-Q data input.
80	O-MUTE	O	System mute $\overline{\text{ON}}$/OFF output.

ADJUSTMENT – 1 <TUNER / DECK>


A MAIN C.B
⑱ ⑯ ⑯ ⑱ ⑰ ① ⑨ ⑧ ⑦ ⑦ ⑦ ③ ① ② ⑤ ⑩
L741
TP4
L742
TP2
IC770
30
TP1
FFE801
L451
SFR451 SFR452
TP10
IC301
R311
TP3
TP5
L942
L981
SFR305
IC720
SFR722
TC701
SFR302
SFR301
SFR303
SFR306
SFR304
L941
TC942
⑮
⑮
GND
TP8 LCH
TP9 RCH
⑫ ⑬ ⑭ ⑮ ⑯ ⑰
IC600
GND
TP7 RCH
TP6 LCH
④ ⑪ ⑩ ⑧
③ ④ ⑥ ⑦ ⑪


J DECK C.B
SFR1
⑫

DECK–1 P, DECK–2 R / P / E HEAD



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP1 (CLK IC770 pin30)
   • Adjustment location : TC701
   Method : Set to MW 1602kHz (EZ,G,HE), 1710kHz (U) and adjust TC701 so that the test point becomes 2052kHz ± 0.01kHz(EZ,G,HE), 2160kHz ± 0.01kHz(U).

2. MW VT Check
   Settings : • Test point : TP2 (VT)
   Method : Set to MW 1602kHz (EZ,G,HE), 1710kHz (U) and check that the test point is 6.8V ± 1.0V (EZ,G,HE), 7.0 ± 1.0V (U).

3. AM IF Adjustment
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L742 .... 450kHz
   Method : Set to MW 999kHz (EZ,G,HE), 1000kHz (U) and adjust L742 so that the test point becomes maximum.

4. MW Tracking Adjustment
   Settings : • Test point : TP6, TP7
   • Adjustment location : L981
   Method : Set to MW 999kHz (EZ,G,HE), 1000kHz (U) and adjust L981 so that the test point becomes maximum.

5. FM VT Check
   Settings : • Test point : TP2 (VT)
   Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.0V(HE,U), 1.5V(EZ,G) (87.5MHz) and less than 8.0V (HE,U), 8.2V(EZ,G) (108.0MHz).

6. FM Tracking Check
   Settings : • Test point : TP6, TP7
   Method : • Set to FM 98.0MHz and check that the test point is $2dB \pm 6dB$(HE,U), 8^{+6}_{-10}dB(EZ,G).

7. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4
• Adjustment location : L741
• Input level : 54dB
Method : Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V. Next, check that the distortion is less than 1.3%.

8. Auto Stop Level Adjustment
Settings : • Test point : TP5
• Adjustment location : SFR722
• Input level : 18dB
Method : Set to FM 98.0 MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) by 2dB down.

9. Auto Stop Level Check
MW
Settings : • Test point : TP5
• Input level : 50dB
Method : Set to MW 999kHz (EZ,G,HE), 1000kHz (U) and check that the test point is 40 ~ 65 dB.

FM
Settings : • Test point : TP5
• Input level : 20dB
Method : Set to FM 98.0MHz and check that the test point is 20 dB ± 5 dB.

10. LW VT Adjustment (EZ,G)
Settings : • Test point : TP2 (VT)
• Adjustment location : L942
Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V.

11. LW Tracking Adjustment (EZ,G)
Settings : • Test point : TP6, TP7
• Adjustment location :
L941 .... 144kHz
TC942 .... 290kHz
Method : Set up TC942 to center before adjust. The level at 144kHz is adjust to maximum by L941. Then the level at 290kHz is adjust to maximum by TC942.

< DECK SECTION >

12. Tape Speed Adjustment
Settings : • Test tape : TTA-100
• Test point : TP8, TP9
• Adjustment location : SFR1
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

13. Head Azimuth Adjustment
Settings : • Test tape : TTA-300
• Test point : TP8, TP9
• Adjustment location : Head azimuth adjustment screw
Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD and REV PLAYmode.

14. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA-300
• Test point : TP8, TP9
Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is ±2dB.

15. PB Sensitivity Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA-200
• Test point : TP8, TP9
• Adjustment location : SFR301 (DECK 1, Lch)
SFR302 (DECK 1, Rch)
SFR303 (DECK 2, Lch)
SFR304 (DECK 2, Rch)
Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 300mV.

16. REC/PB Frequency Response Adjustment
Settings : • Test tape : TTA-602
• Test point : TP8, TP9
• Input signal : 1kHz / 10kHz (LINE IN)
• Adjustment location : SFR451 (Lch)
SFR452 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Adjustment
Settings : • Test tape : TTA-602
• Test point : TP8, TP9
• Input signal : 1kHz (LINE IN)
• Adjustment location : SFR305 (Lch)
SFR306 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1 kHz signals and adjust SFRs so that the output is 21mV ± 0.5dB.

18. Bias OSC Frequency Adjustment
Settings : • Test tape : TTA-615
• Test point : TP10 (R311)
• Adjustment location : L451
Method : Set to the REC mode. Adjust L451 so that the frequency at the test point is 85kHz ± 1kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF sensitivity : (THD 3%)	HE, U : 3dB ± 6dB [at 87.5 / 98.0MHz] 6dB ± 6dB [at 108.0MHz] EZ, G : 8dB + 6dB / 8dB - 10dB [at 87.5 / 98.0MHz] 10dB + 6dB / 10dB - 10dB [at 108.0MHz]
S/N 50dB Quieting sensitivity :	HE, U : Less than 36dB EZ, G : Less than 39dB [at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio :	HE, U : More than 65dB EZ, G : More than 60dB [at 98.0MHz/MONO] HE, U : More than 64dB EZ, G : More than 57dB [at 98.0MHz/STEREO]
Distortion :	1.3% [at 98.0MHz/MONO] Less than 2.0% [at 98.0MHz/STEREO]
Stereo separation :	HE, U : More than 25dB EZ, G : More than 20dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<AM(MW) SECTION>

Sensitivity : (S/N 20 dB)	52 ~ 62dB [at 603kHz (EZ,G,HE)] [at 600kHz (U)] 48 ~ 58dB [at 999kHz / 1404kHz (EZ,G,HE)] [at 1000kHz / 1400kHz(U)]
Signal to noise ratio :	More than 36dB [MONO] More than 35dB [STEREO] [at 999kHz (EZ,G,HE)] [at 1000kHz (U)]
Distortion :	Less than 1.5% [MONO] Less than 1.5% [STEREO]
Intermediate frequency :	450kHz

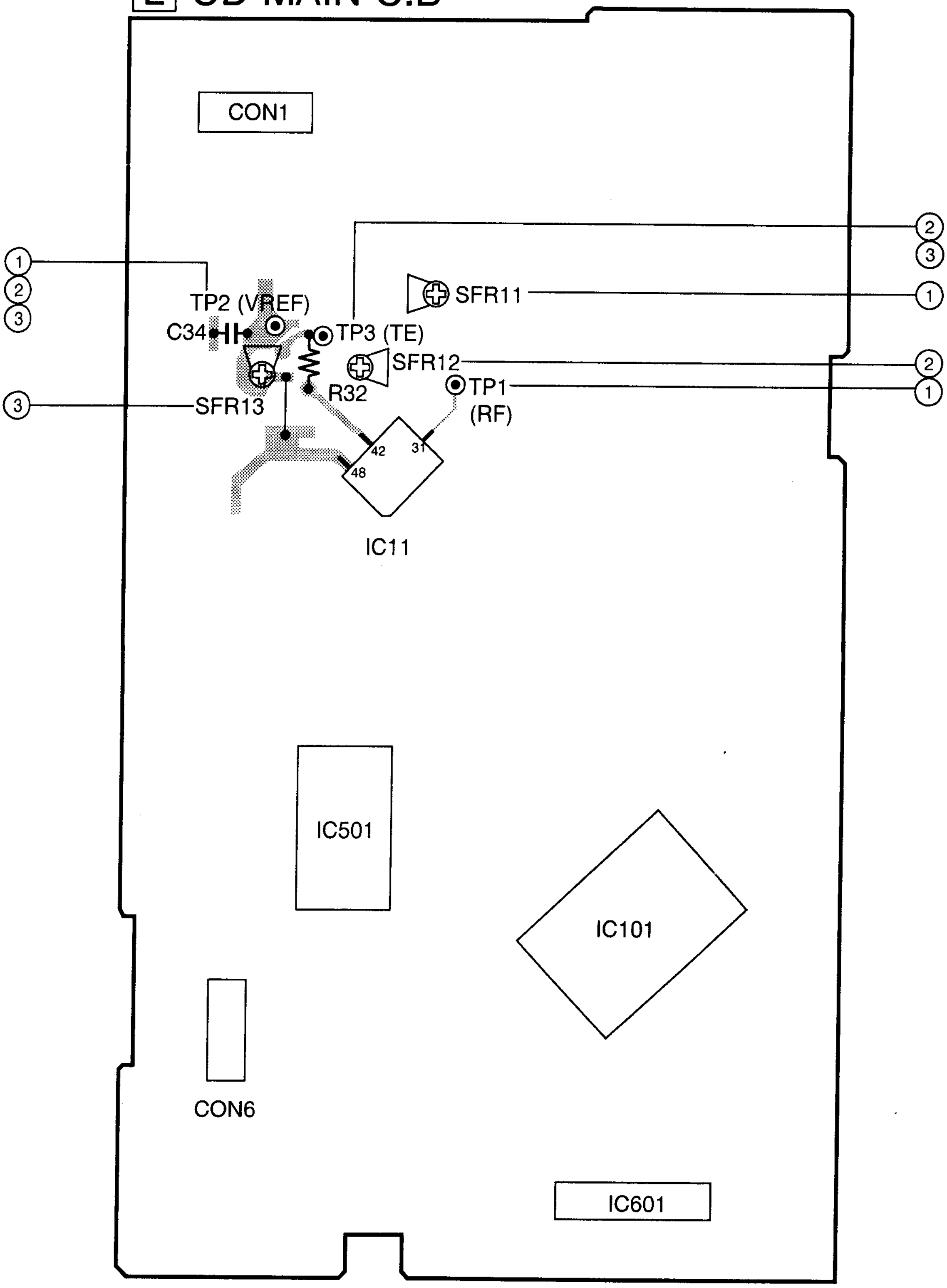
<LW SECTION>(EZ,G)

Sensitivity : (S/N 20dB)	64dB ± 5dB [at 144kHz] 62dB ± 5dB [at 198kHz] 60dB ± 5dB [at 290kHz]
Signal to noise ratio :	More than 36dB [at 198kHz]
Distortion :	Less than 1.4% [at 198kHz]
Intermediate frequency :	450kHz

<DECK SECTION>

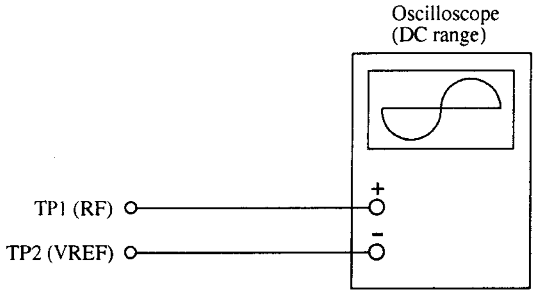
Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.15% (R.M.S)
Take-up torque :	30 ~ 55g-cm (FWD, REV)
F.F & REW torque :	75 ~ 160g-cm
Back tension :	2 ~ 7g-cm (FWD, REV)
PB output level :	2.8V ± 2dB (SP OUT 2V)
REC/PB output level :	1.7V ± 2dB (SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0% (NORM, CrO2)
Noise level (PB) :	Less than 110mV / 80mV (NORM, DOLBY OFF / B ON, SP OUT 2V) Less than 90mV / 70mV (CrO2, DOLBY OFF / B ON, SP OUT 2V)
Noise level (REC/PB) :	Less than 120mV / 90mV (NORM, DOLBY OFF / B ON, SP OUT 2V) Less than 100mV / 80mV (CrO2, DOLBY OFF / B ON, SP OUT 2V)
Crosstalk :	More than 58dB (1kHz, 0VU)
Channel separation :	More than 45dB (1kHz, 0VU)
Erasing ratio :	More than 60dB (at 125Hz, 10VU)
Test tape :	TTA-602 (NORMAL) TTA-615 (CrO2)

L CD MAIN C.B


CON1
①
②
③
TP2 (VREF)
C34
TP3 (TE)
SFR11
SFR12
TP1
(RF)
R32
SFR13
②
③
①
②
①
③
42
31
48
IC11
IC501
IC101
CON6
IC601

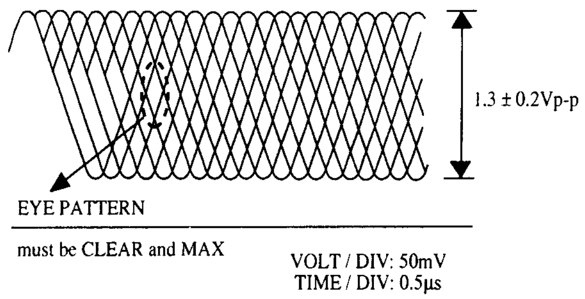
Note :
Connect a probe (10:1) of the oscilloscope or the frequency counter to a test point TP2(VREF).

1. Focus Bias Adjustment
   Make the focus bias adjustment when replacing and repairing the optical block.

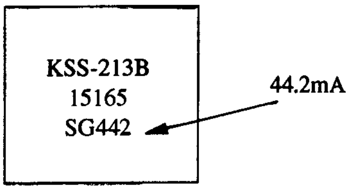


1) Connect an oscilloscope to the test points TP1 (RF) and TP2 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR11 so that RF signal of the test point TP1 (RF) is MAX and CLEARREST.

RF signal waveform

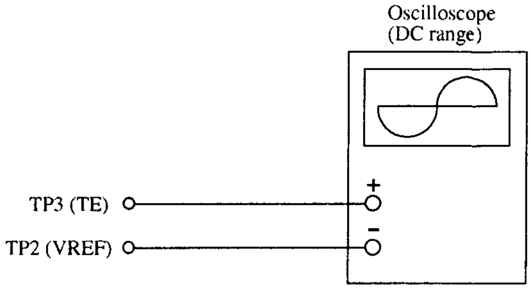


Note:
The current of the laser signal can be checked with the voltages on both sides of R28 (10Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

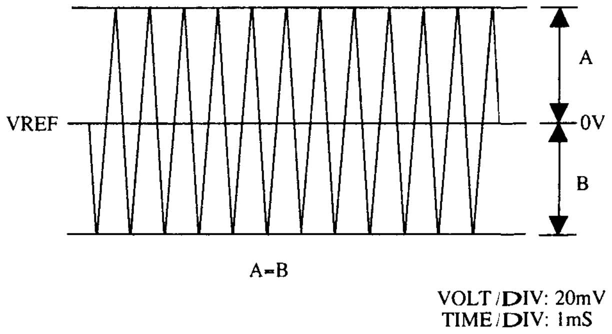


$$\text{Laser current Iop} = \frac{\text{Voltage across R28}}{10\Omega}$$

2. Tracking Balance Adjustment



1) Connect an oscilloscope to the test points TP3 (TE) and TP2 (VREF).
2) Active the CD test mode.
3) Insert test disc TCD-782 (YEDS-18) and set the traverse mode (No.4) of CD test mode.
4) Adjust SFR12 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
5) After the adjustment is completed, remove the connected lead wires from the terminals.



3. Tracking Gain Adjustment
A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem. Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these gains are reciprocate, the adjustment is performed at the point where both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device operates increases.

- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

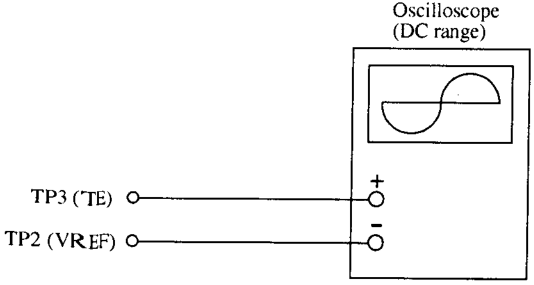
When the gain adjustment is not satisfied, the symptoms below appear.

Gain Symptoms	(Focus)	Tracking
• The time until music starts becomes longer for STOP → ►PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP → ►PLAY or automatic selection (⏮, ⏭ buttons pressed.)	–	low
• Disc stops to rotate shortly after STOP → ►PLAY.	low or high	–
• Sound is interrupted during PLAY. Or time counter display stops.	–	low
• More noises during the 2-axis device operation.	high	high

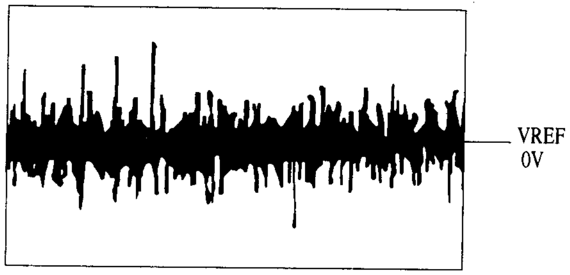
The following is simple adjustment method.

– Simple adjustment –
Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:



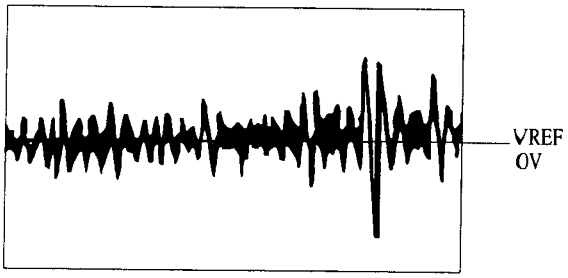
1) Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3) Connect an oscilloscope to TP2 (VREF) and TP3(TE).
4) Adjust SFR13 so that the waveform appears as shown in the figure below.
(tracking gain adjustment)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

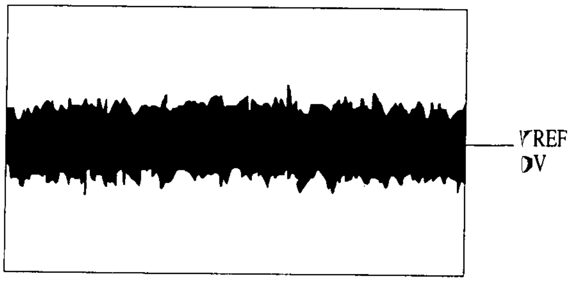
- Incorrect example

Low tracking gain
(The fundamental wave appears as compared with the waveform adjusted)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

High tracking gain
(The frequency of the fundamental wave is higher than in low gain)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

TEST MODE

1. How to Activate CD Test Mode
1) Insert the AC plug while pressing the function CD button. All FL display tubes will light up, and the test mode will be activated.

2. How to cancel CD Test Mode
Either one of the following operations will cancel the CD test mode.
- Press the function button (except CD button).
- Press the power switch button. • Disconnect the AC plug.

3. CD Test Mode Functions
When test mode is activated, the following mode functions from No. 1 to No. 5 can be used by pressing the operation keys.

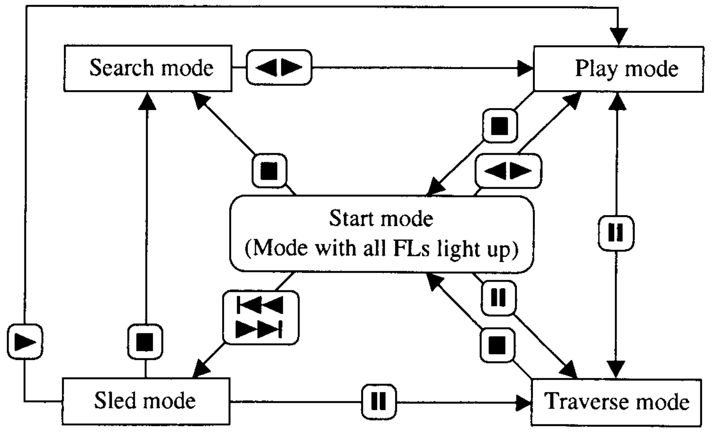
Mode / No.	Operation	FL display	Operation	Contents
Start mode No. 1	Test mode activation	All FL light up	• Active the test mode. (CD block power supply ON)	All FL displays light up
Search mode No. 2	■ key	CD--	• Laser diode illuminated under normal circumstances • Continual focus search * NOTE 1 (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes.	• Laser current measurement (Across R28 resistor) FOCUS SERVO • Check focus search waveform • Check focus error waveform * FOK / FZC are not monitored in the search mode.
Play mode No. 3	◀▶ key	C01	• Normal playback • Focus search is continued if TOC cannot be read * NOTE 1	FOCUS SERVO / TRACKING SERVO CLV SERVO / SLED SERVO Check FOK / FZC
Traverse mode No. 4	II key	C01	• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON / OFF Tracking balance (traverse) adjustment TP2 (VREF), TP3 (TE)
Sled mode No. 5	|◀◀ key ▶▶|	All FL light up	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases, the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.

* NOTE 2: Do not press the |◀◀ or ▶▶| keys when the machine is in the II status is active. If they are pressed, playback will not be possible after the II status has been canceled. If the |◀◀ or ▶▶| keys are pressed in the II status, press the ■ key and return to start mode (No. 1).

* NOTE 3: When pressing the |◀◀ or ▶▶| keys, take care to avoid damage to the gears. Because the sled motor is activated when the |◀◀ or ▶▶| keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
- The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.
- When DISC DIRECT key is pressed, test mode is operated same as pressing the PLAY key.
- When CD tray is opened by OPEN / CLOSE key while play and traverse modes, test mode goes back start mode.

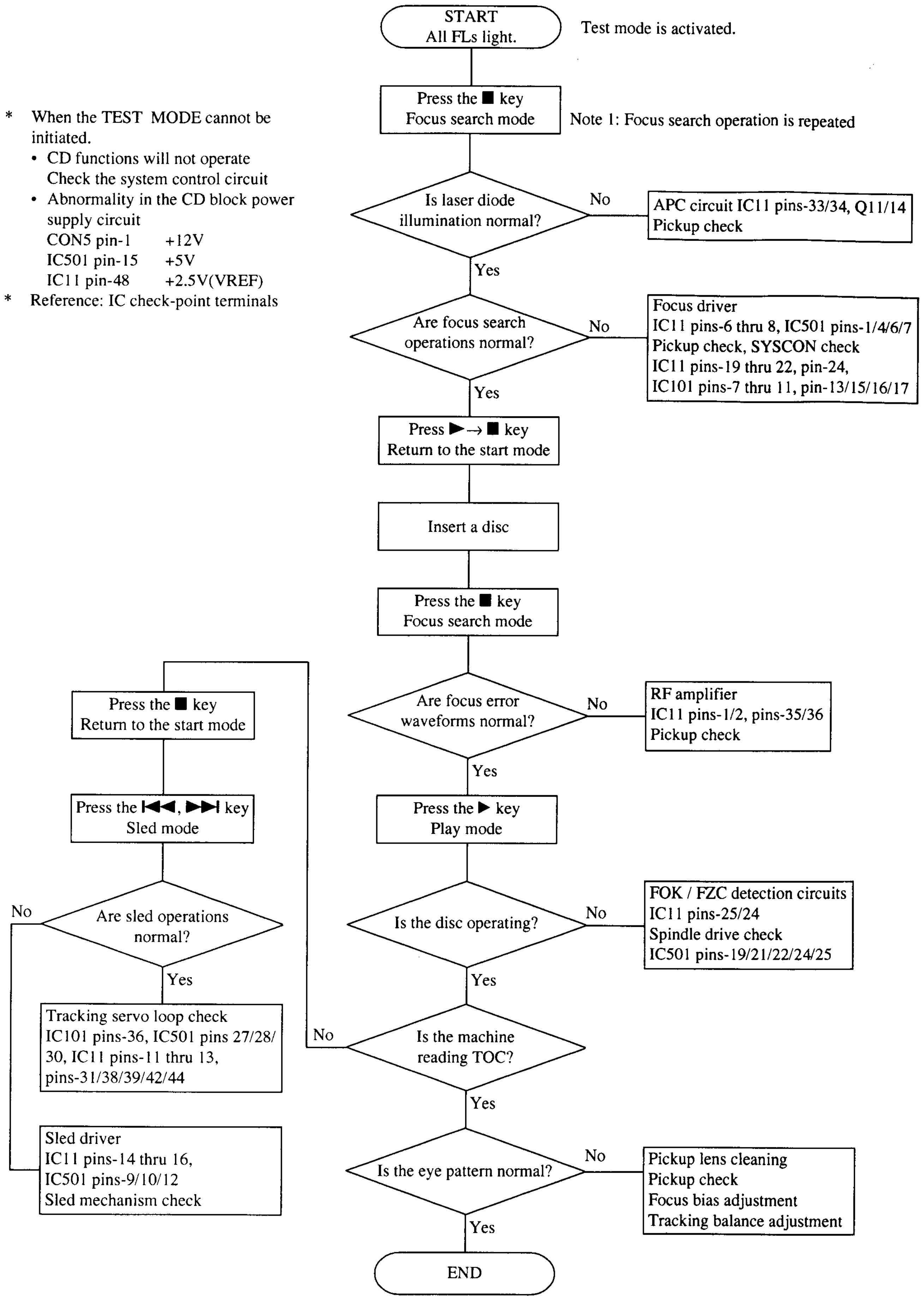

Search mode
◀▶
Play mode
■
■
◀▶
Start mode
(Mode with all FLs light up)
II
|◀◀
▶▶|
II
▶
■
■
Sled mode
II
Traverse mode

CD TROUBLE-SHOOTING

Flow Chart

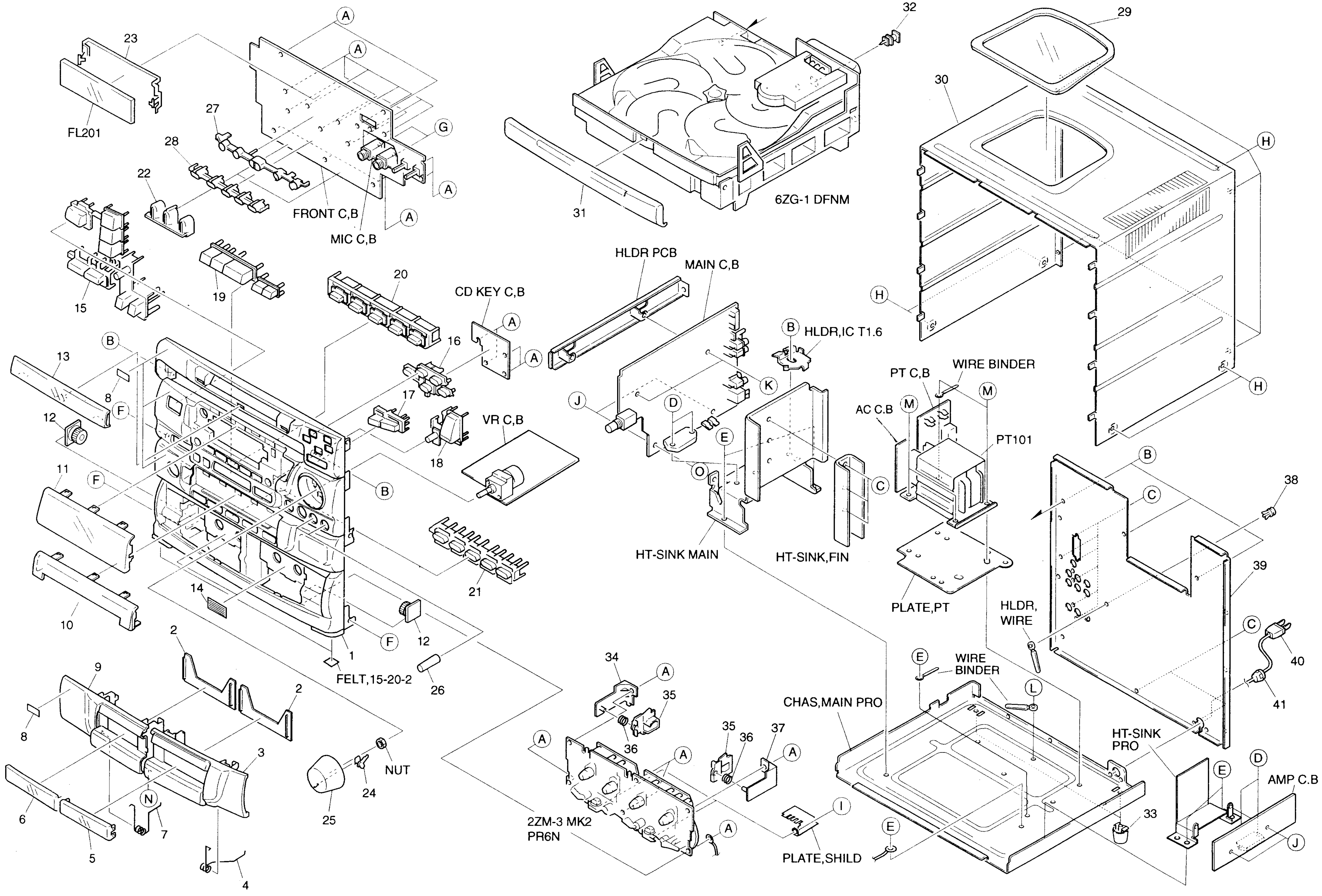
* When the TEST MODE cannot be initiated.
- CD functions will not operate
  Check the system control circuit
- Abnormality in the CD block power supply circuit
  CON5 pin-1 +12V
  IC501 pin-15 +5V
  IC11 pin-48 +2.5V(VREF)

* Reference: IC check-point terminals


Test mode is activated.

Note 1: Focus search operation is repeated
START
All FLs light.
Press the ■ key
Focus search mode
Is laser diode illumination normal?
No
APC circuit IC11 pins-33/34, Q11/14
Pickup check
Yes
Are focus search operations normal?
No
Focus driver
IC11 pins-6 thru 8, IC501 pins-1/4/6/7
Pickup check, SYSCON check
IC11 pins-19 thru 22, pin-24,
IC101 pins-7 thru 11, pin-13/15/16/17
Yes
Press ▶→■ key
Return to the start mode
Insert a disc
Press the ■ key
Focus search mode
Are focus error waveforms normal?
No
RF amplifier
IC11 pins-1/2, pins-35/36
Pickup check
Yes
Press the ▶ key
Play mode
Is the disc operating?
No
FOK / FZC detection circuits
IC11 pins-25/24
Spindle drive check
IC501 pins-19/21/22/24/25
Yes
Is the machine reading TOC?
No
Press the ■ key
Return to the start mode
Press the |◀◀, ▶▶| key
Sled mode
Are sled operations normal?
No
Yes
Tracking servo loop check
IC101 pins-36, IC501 pins 27/28/30, IC11 pins-11 thru 13, pins-31/38/39/42/44
Sled driver
IC11 pins-14 thru 16,
IC501 pins-9/10/12
Sled mechanism check
Yes
Is the eye pattern normal?
No
Pickup lens cleaning
Pickup check
Focus bias adjustment
Tracking balance adjustment
Yes
END

MECHANICAL EXPLODED VIEW 1/1



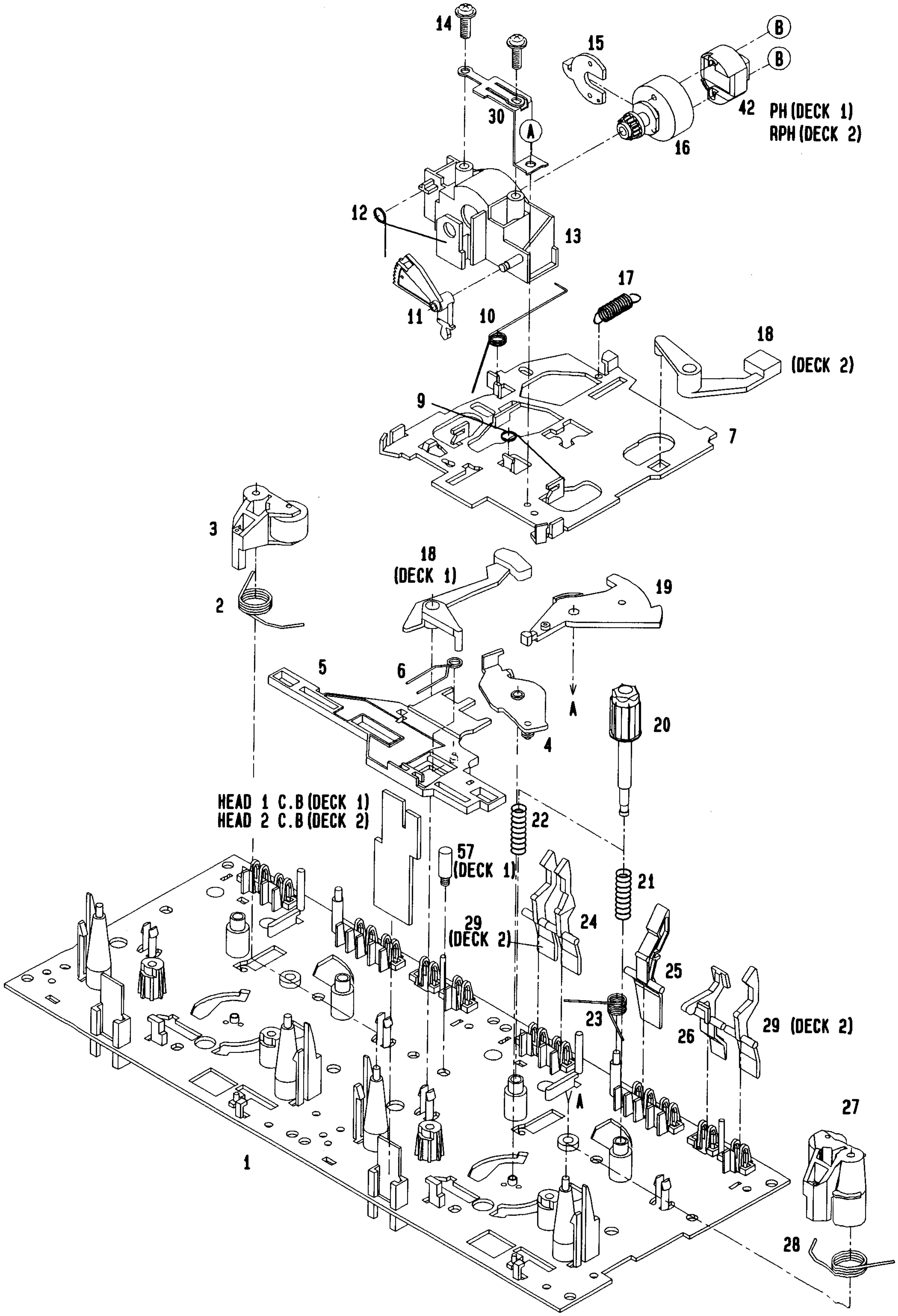
23
FL201
A
27
28
G
22
FRONT C,B
MIC C,B
15
19
20
CD KEY C,B
16
17
18
VR C,B
B
13
8
F
12
11
10
14
1
FELT,15-20-2
26
2
9
3
6
5
7
N
4
24
NUT
25
32
29
30
31
6ZG-1 DFNM
H
HLDR PCB
MAIN C,B
HLDR,IC T1.6
K
J
D
E
O
C
HT-SINK MAIN
HT-SINK,FIN
AC C.B
M
PT C,B
WIRE BINDER
PT101
PLATE,PT
HLDR,
WIRE
38
39
40
41
34
35
36
37
2ZM-3 MK2
PR6N
I
PLATE,SHILD
CHAS,MAIN PRO
L
33
HT-SINK
PRO
AMP C.B

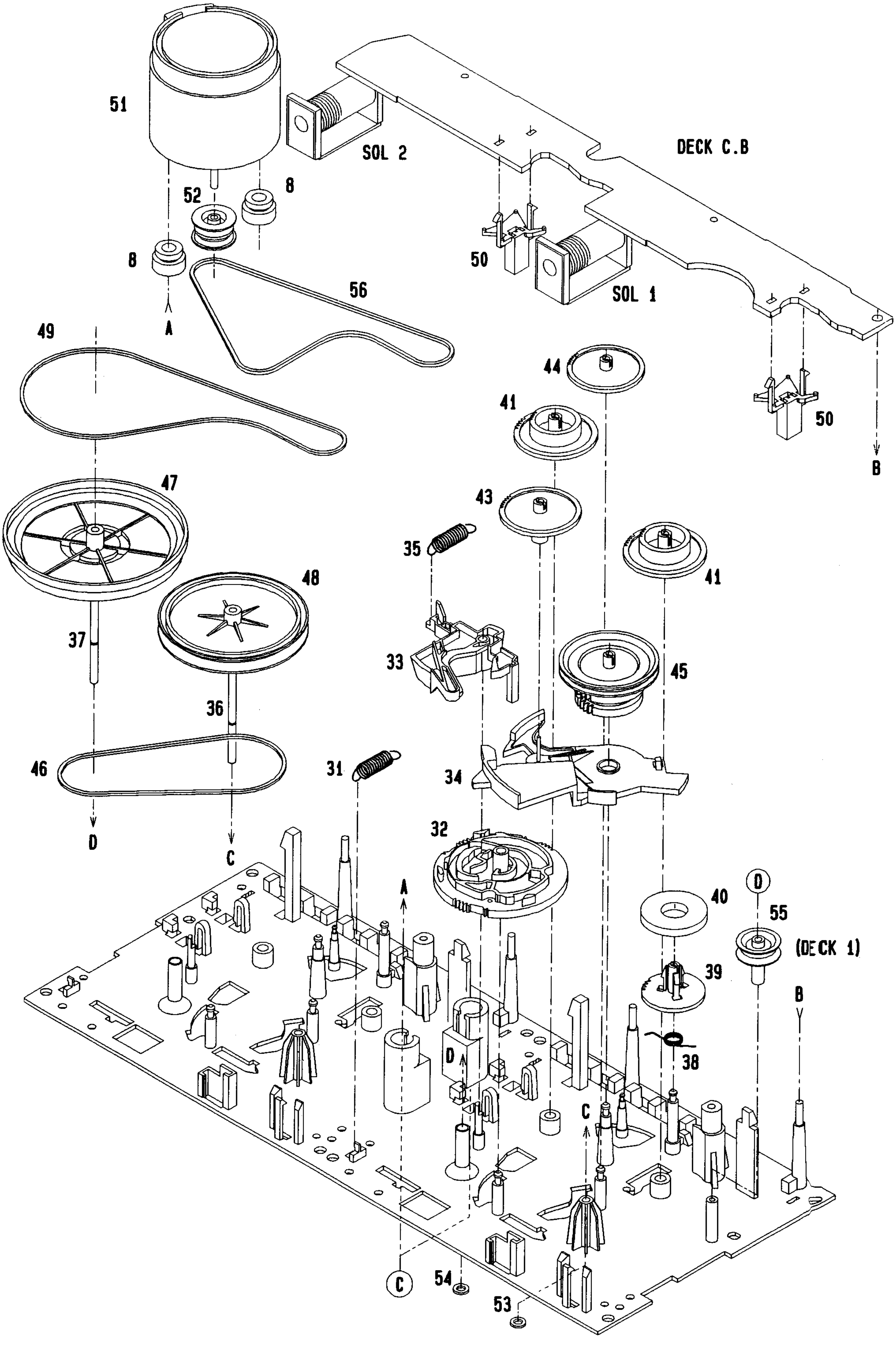
MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MAR-003-010		CABI,FR E(24)<G,EEZ,EZ>
1	86-MAR-021-010		CABI,FR HE(279)<HE>
1	86-MAR-002-010		CABI,FR U(24)<U>
2	86-NF6-061-010		REFLECTOR,CASS
3	86-MA3-005-010		BOX,CASS R<HE>
3	86-MA3-007-010		BOX,CASS R E<EXCEPT HE>
4	82-NF5-219-010		SPR-T,EJECT 2(SIN)
5	86-MA3-032-010		WINDOW,CASS R
6	86-MA3-031-010		WINDOW,CASS L
7	82-NF5-218-010		SPR-T,EJECT 1(SIN)
8	82-NE8-032-010		BADGE,AIWA 27.5 ABS GLD
9	86-MA3-004-010		BOX,CASS L<HE>
9	86-MA3-006-010		BOX,CASS L E<EXCEPT HE>
10	86-MA3-030-010		WINDOW,GEQ
11	86-MAP-018-010		WINDOW,AMP(PRO)
12	87-063-165-010		OIL-DMPR,150
13	86-MA3-028-010		WINDOW,CD
14	81-532-080-010		LBL,CASS-COMPT
15	86-MA3-013-010		KEY,POWER
16	86-MA3-012-010		KEY,DIRECT
17	86-MA3-011-010		KEY,OPEN
18	86-MAR-007-010		KEY,PRO-LOGIC (24)
19	86-MA3-016-010		KEY,PLAY
20	86-MA3-041-010		KEY,FUN ASSY
21	86-MA4-007-010		KEY,CONT 2<HE>
21	86-MA4-008-010		KEY,GEQ 2<EXCEPT HE>
22	85-NF5-211-110		GUIDE,LED R
23	82-NF5-212-010		GUIDE,FL
24	86-MA3-020-010		LENS,VOL
25	86-MA3-019-010		KNOB,RTRY MAIN
26	81-MX4-019-010		KNOB,MIC (*)
27	86-MA3-202-010		GUIDE,PLAY
28	86-MAP-201-010		GUIDE,PRO-LOGIC
29	86-MA3-042-010		WINDOW,TOP
30	86-MA3-010-010		CABI,STEEL
31	86-MA3-009-010		PANEL,TRAY E<EXCEPT HE>
31	86-MA3-008-010		PANEL,TRAY H<HE>
32	84-ZG1-245-110		CAP,OPTICAL
33	87-085-224-010		FOOT, H 17
34	82-NF5-226-010		HLDR,LOCK 1N(*)
35	82-NF5-229-010		PLATE,LOCK(*)
36	82-NF5-228-010		SPR-C,LOCK
37	82-NF5-227-010		HLDR,LOCK 2N(*)
38	87-084-077-010		RIVET, NYL3.5-4.5
39	86-MAR-006-010		PANEL,REAR EZBNM<EEZ,EZ>
39	86-MAR-009-010		PANEL,REAR GBNM<G>
39	86-MAR-022-010		PANEL,REAR HEJBNM(279<HE>
39	86-MAR-005-010		PANEL,REAR UBNM<U>
⚠ 40	87-050-079-010		AC CORD ASSY,E BLK<HE, EZ, EEZ>
⚠ 40	87-050-081-110		AC CORD ASSY,G<G>
⚠ 40	87-050-053-010		AC CORD ASSY,U-2<U>
41	87-085-185-010		BUSHING,ACCORD(E)CM-22B<EXCEPT U>
41	87-085-189-010		BUSHING,ACCORD(U)CM-22C<U>
A	87-078-060-010		BVIT3B+3-10
B	87-067-703-010		BVT2+3-10 W/0 SLOT
C	87-067-579-010		BVT2+3-8 W/0 SLOT
D	87-067-581-010		BVT2+3-15 W/0 SLOT
E	87-067-688-010		BVTT+3-6
F	87-591-095-410		QIT+3-8
G	81-MK1-210-010		S-SCREW,BFT2+3-16
H	87-067-641-010		UTT2+3-8 W/O SLOT BLK
I	87-571-032-410		VIT+2-3
J	87-067-633-010		BVT2+3-8 W/O SLOT W/CONVEX
K	87-078-084-010		BVTT+3-6 W/CONVEX
L	87-571-092-410		VIT+3-4
M	87-067-975-010		S-SCREW,IT+4-8 SWCH12A
N	82-NE8-215-010		W,4.2-6.8-0.18
O	87-067-058-010		W-F,3.2-8-0.5 W/ADH

TAPE MECHANISM EXPLODED VIEW 1 / 1


14
15
B
B
30
A
42
PH (DECK 1)
RPH (DECK 2)
16
12
13
17
11
10
18
(DECK 2)
9
7
3
18
(DECK 1)
19
2
5
6
4
A
20
HEAD 1 C.B (DECK 1)
HEAD 2 C.B (DECK 2)
22
57
(DECK 1)
21
24
29
(DECK 2)
25
23
26
29 (DECK 2)
A
27
1
28


SOL 2
DECK C.B
SOL 1
A
B
D
C
A
D
(DECK 1)
B
D
C
C

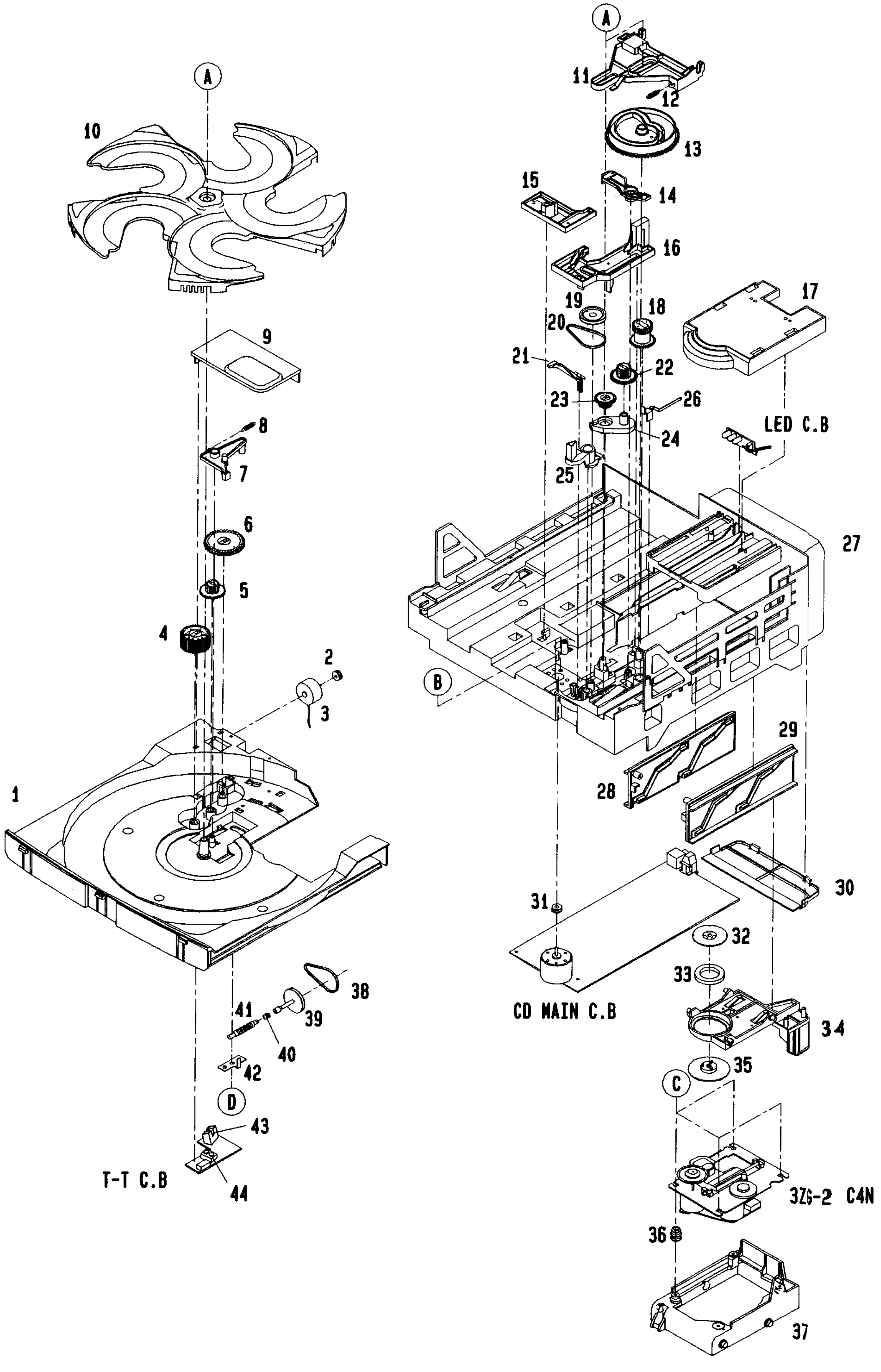
TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY,M2
2	82-ZM1-258-110		SPR-T,PINCH L
3	82-ZM1-345-019		LVR ASSY,PINCH L W
4	82-ZM1-333-010		PLATE,LINK 2
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-119		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-619		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-119		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-21K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-310		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-346-019		LVR ASSY,PINCH R W
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
30	82-ZM1-298-010		SPR-P,EARTH
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-01K		GEAR,CAM M2
33	82-ZM1-227-21K		LVR,TRIG
34	82-ZM3-306-11K		LVR,FR M2

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
35	82-ZM1-265-119		SPR-E,TRIG
36	82-ZM1-236-019		CAPSTAN N 2-41.5
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-31K		GEAR,REEL
42	87-A90-110-019		HEAD,PH KP7442
42	87-A90-107-019		HEAD,RPH KC9242
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM1-228-810		SLIP DISK ASSY
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-238-81K		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-71K		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-51K		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-61K		FLY-WHL ASSY,L2 (DECK 1)
49	82-ZM3-329-210		BELT,SBU R2
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-221-010		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-304-110		PULLEY,COUPLER (DECK 1)
56	82-ZM3-328-110		BELT,SBU P2
57	82-ZM3-216-019		SHAFT,COUPLER N(DECK 1)
A	82-ZM1-315-010		S-SCREW,GVIDE TAPE
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-067-972-019		PW,1.05-3-0.25 SLT

CD MECHANISM EXPLODED VIEW 1 / 2



A
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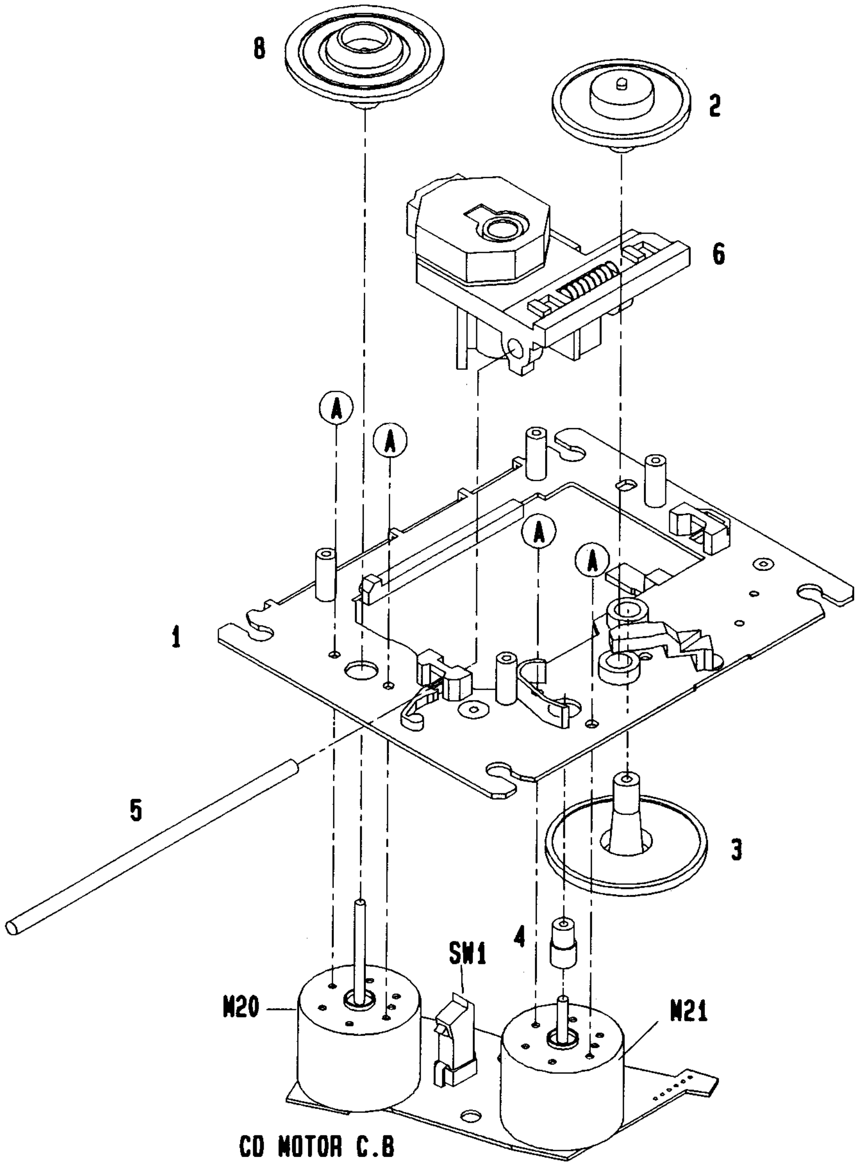
2
3
1
38
41
39
40
42
D
43
T-T C.B
44
A
11
12
13
15
14
16
17
19
18
20
21
22
23
26
LED C.B
24
25
27
B
29
28
30
31
32
33
CD MAIN C.B
34
35
C
3Z6-2 C4N
36
37

CD MECHANISM PARTS LIST 1 / 2

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZG1-001-01K		TRAY,5CD
2	81-ZG1-212-01K		PULLY,LOAD MO
3	87-A90-036-019		MOT ASSY,RF-300CA-11
4	86-ZG1-228-01K		GEAR,TT-B
5	86-ZG1-227-01K		GEAR,TT-A
6	86-ZG1-223-01K		WORM-WHEEL,TT
7	86-ZG1-224-01K		LEVER,TT
8	86-ZG1-226-010		SPR-E,LEVER TT
9	86-ZG1-003-01K		COVER,TRAY
10	86-ZG1-002-01K		TURN TABLE,5CD
11	86-ZG1-211-01K		JOINT,CAM
12	86-ZG1-216-010		SPR-E,JT
13	86-ZG1-203-01K		GEAR,MAIN CAM
14	86-ZG1-213-01K		LEVER,LOAD
15	86-ZG1-214-01K		LEVER,PROTECT
16	86-ZG1-212-01K		SLIDER,LOAD
17	86-ZG1-004-01K		REFLECTOR,CD
18	86-ZG1-205-01K		GEAR,TRAY
19	84-ZG1-219-019		PULLY,RELAY BGE
20	84-ZG1-209-010		BELT,SQ1.8-117.7
21	86-ZG1-217-01K		LEVER,SW
22	86-ZG1-206-01K		GEAR,RELAY B
23	86-ZG1-204-01K		GEAR,RELAY A
24	86-ZG1-218-01K		PLATE,GEAR
25	86-ZG1-208-01K		LEVER,TRAY
26	86-ZG1-220-110		SPR-P,LOCK
27	86-ZG1-201-01K		CHAS,MECHA
28	86-ZG1-209-01K		SLIDER,CAM L
29	86-ZG1-210-01K		SLIDER,CAM R
30	86-ZG1-005-01K		COVER,CHAS
31	84-ZG2-228-019		PULLEY,MOT
32	83-ZG3-211-01K		PLATE,DISC
33	83-ZG3-602-010		RING,MAG
34	86-ZG1-215-01K		HLDR,CHUCK
35	83-ZG3-212-019		CAP,DISC
36	80-CD3-214-019		CUSH CD A
37	86-ZG1-202-01K		HLDR,MECHA
38	86-ZG1-225-019		BELT,SQ1.2-32.9
39	86-ZG1-221-01K		PULLEY,TT
40	86-ZG1-231-010		SPR-C,WORM
41	84-ZG1-238-01K		GEAR,WORM N
42	86-ZG1-232-010		SPR-P,WORM
43	86-ZG1-229-010		HLDR,SENSOR
44	86-ZG1-230-010		HLDR,DISC SENSOR
A	87-078-148-019		VFT 2+3-12(F10)BLK
B	87-251-072-419		U+2.6-5
C	81-ZG1-254-019		S-SCEW,MECH HLDR
D	87-067-579-010		BVT2+3-8 W/O SLOT

CD MECHANISM EXPLODED VIEW 2 / 2

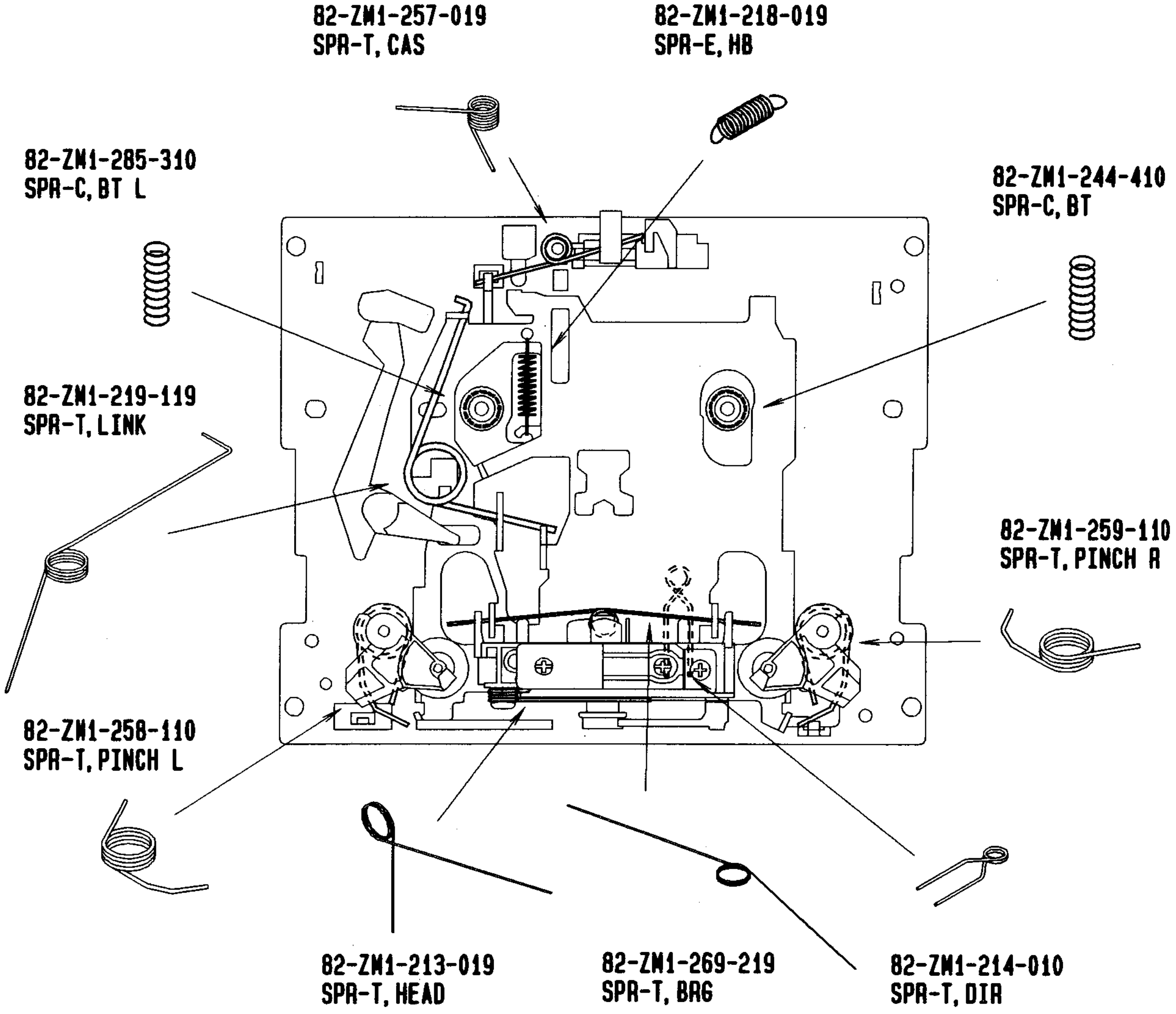


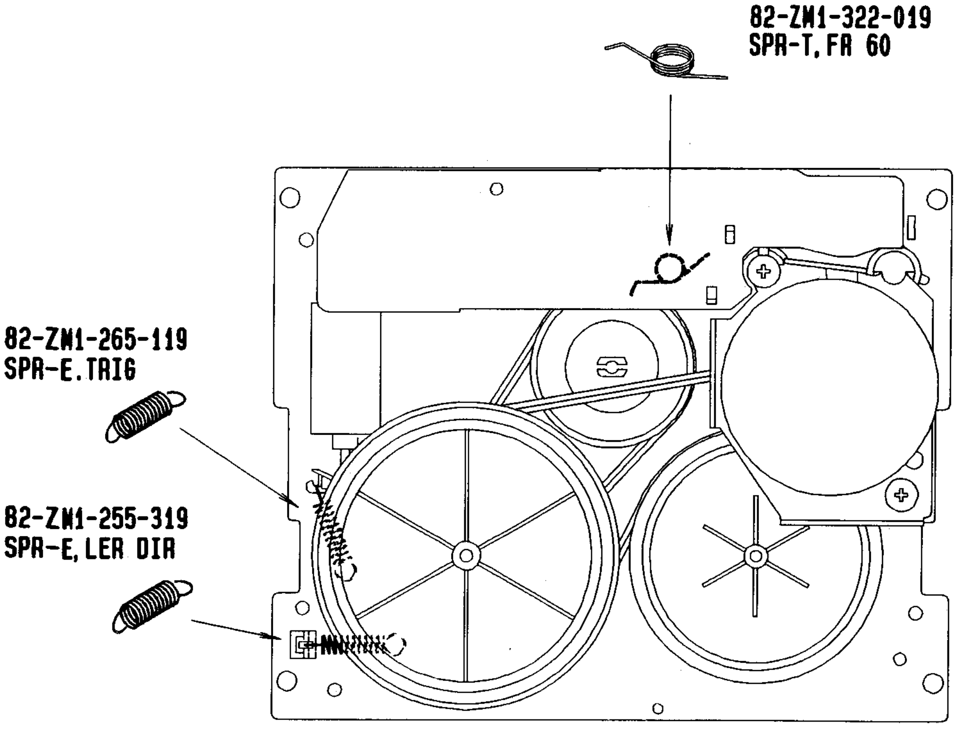
CD MECHANISM PARTS LIST 2 / 2

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-232-11K		O-SERT S ASSY,S5
2	83-ZG2-204-419		GEAR,A
3	83-ZG2-205-219		GEAR,B
4	83-ZG2-220-01K		GEAR MOTOR 2
5	83-ZG2-207-119		SHAFT,SLIDE
6	87-070-445-010		PICK-UP,KSS-213B
8	83-ZG2-227-01K		TURN TABLE,C1
A	87-261-032-219		SCREW V+2-3

SPRING APPLICATION POSITION


82-ZM1-257-019
SPR-T, CAS
82-ZM1-218-019
SPR-E, HB
82-ZM1-285-310
SPR-C, BT L
82-ZM1-244-410
SPR-C, BT
82-ZM1-219-119
SPR-T, LINK
82-ZM1-259-110
SPR-T, PINCH R
82-ZM1-258-110
SPR-T, PINCH L
82-ZM1-213-019
SPR-T, HEAD
82-ZM1-269-219
SPR-T, BRG
82-ZM1-214-010
SPR-T, DIR


82-ZM1-322-019
SPR-T, FR 60
82-ZM1-265-119
SPR-E. TRIG
82-ZM1-255-319
SPR-E, LER DIR

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MAP-701-119		RC UNIT,6AS02
2	86-MAR-901-019		IB,G(E)M<G>
2	86-MAR-902-019		IB,U(ESF)M<U>
2	86-MAR-904-019		IB,E(EGFSI)M<EZ>
2	86-MAR-905-019		IB,H(ECA)N<HE>
3	87-006-225-019		AM LOOP ANT NC2
4	87-043-115-019		FEEDER,ANT FM<HE,U>
4	87-043-106-019		FM,WIRE ANT (Z)<G,EZ>
⚠ 5	87-099-789-019		PLUG,ADPTR IR44<HE>

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
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